

File 155:MEDLINE(R) 1951-2006/Mar 10
 (c) format only 2006 Dialog
 File 5:Biosis Previews(R) 1969-2006/Mar W1
 (c) 2006 BIOSIS
 File 73:EMBASE 1974-2006/Mar 14
 (c) 2006 Elsevier Science B.V.
 File 94:JICST-EPlus 1985-2006/Dec W3
 (c)2006 Japan Science and Tech Corp(JST)
 File 144:Pascal 1973-2006/Feb W3
 (c) 2006 INIST/CNRS
 File 34:SciSearch(R) Cited Ref Sci 1990-2006/Mar W1
 (c) 2006 Inst for Sci Info
 File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
 (c) 1998 Inst for Sci Info

Set	Items	Description
S1	2054	(BREATHING OR AIRWAY OR EXHALAT? OR EXPIRATORY) () (TUBE OR - TUBES OR CIRCUIT? ? OR CONDUIT? ? OR FLOW()PASSAGE? ?)
S2	390	UNILIMB OR UNILIMBS OR (UNI OR EXPIRATORY OR EXHALAT?) () (L- IMB OR LIMBS)
S3	27	(HYDROPHILIC OR HYDROPHILLIC) (5N) (THERMOPLASTIC? ? OR PERF- LUORINATED() POLYMER? ? OR (WOVEN(1W) (FABRIC? ? OR MATERIAL? ?-)) (2N) TREATED OR POLYESTER() BLOCK() COPOLYMER? ?)
S4	11429	NAFION OR SYMPATEX OR BUTANEDIOL() POLYETHYLENE() GLYCOL() TE- REPHTHALIC() ACID OR BUTYLENE() GLYCOL() POLYETHYLENE() GLYCOL() T- EREPHTHALIC() ACID OR PERFLUOROCARBON() POLYMER? ?
S5	1934	(REDUC??? OR DECREAS??? OR LOWER???) (3N) (CONDENSATION OR H- UMIDIFICATION)
S6	408721	VAPOR OR VAPOUR
S7	3224222	LIQUID OR FLUID OR RESPIRATORY() (GAS OR GASES)
S8	0	S1:S2 AND S3:S4
S9	9	S1:S2 AND S5
S10	17	S1:S2 AND S6 AND S7
S11	0	S9 AND S10
S12	5	RD S9 (unique items)
S13	9	RD S10 (unique items)

12/7/1 (Item 1 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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05530902 PMID: 7248828

A circle system with a rotating wick vaporizer.

Chalon J; Tang C K; Dwarakanath R; Katz R; Ramanathan S; Turndorf H

Canadian Anaesthetists' Society journal (CANADA) Mar 1981, 28 (2)

p170-3, ISSN 0008-2856--Print Journal Code: 0371163

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

The humidity output of a circle system was raised to 28 mg H2O/l by the use of a modified rotating wick vaporizer placed in the center of the soda lime canister and coaxial inspiratory and expiratory limbs. Both the fresh gas inflow and the expired gases passed through the lime and reached a compartment below it. The bag/ventilator connector, bearing a pressure relief valve, opened on the lateral wall of that compartment. Gases returning to the inspiratory valve passed: (1) through a tube in the

canister connecting the inferior compartment to the **vaporizer** above water level, (2) through the upper portion of the **vaporizer** and around the rotating wick, and (3) through a **tube** emerging from the top of the **vaporizer** to reach the inspiratory valve. Thus inspired **gases** were humidified by the rotating wick constantly replenishing its water content warmed by the reaction of neutralization. The use of coaxial inspiratory and **expiratory limbs reduced water condensation** outside the canister.

Record Date Created: 19810922

Record Date Completed: 19810922

13/7/4 (Item 4 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

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07931979 PMID: 3238882

Introduction to the quantitative technique of closed circuit anesthesia in dogs.

Moens Y

Clinical Department of the Veterinary Faculty of the University of Lubumbashi, Zaire.

Veterinary surgery - VS - the official journal of the American College of Veterinary Surgeons (UNITED STATES) Mar-Apr 1988, 17 (2) p98-104, ISSN 0161-3499--Print Journal Code: 8113214

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

In humans, anesthetic uptake in a closed system with constant arterial concentration has been shown to be inversely proportional to the square root of time. A practical method for quantitative dosage of volatile anesthetic was derived from this. The method was evaluated in nine dogs anesthetized with a closed circle system using halothane and isoflurane. A unit dose (UD) of anesthetic was calculated in milliliters of **vapor** which was converted to milliliters of **liquid** and repeatedly administered into the **expiratory limb** between the squares of integer units of time (0-1, 1-4, 4-9 minutes, etc). The UD was derived as follows: $UD = 2 f MAC \times \lambda B/G \times 2 (kg)^{3/4}$, where f MAC was the desired alveolar concentration, $\lambda B/G$ the blood-**gas** partition coefficient, and $2 (kg)^{3/4}$ was an approximation of cardiac output. The method resulted in a stable plane of anesthesia and permitted continuous monitoring of O2 consumption. There was no significant difference between predicted and measured values of O2 consumption, cumulative doses, or alveolar concentrations at 9 and 16 minutes of anesthesia.

Record Date Created: 19890424

Record Date Completed: 19890424

13/7/7 (Item 3 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

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0012568313 BIOSIS NO.: 200000286626

Breathing circuits with humidity controls

AUTHOR: Paluch Bernard (Reprint)

AUTHOR ADDRESS: 1607 Cedar La., Mount Prospect, IL, 60056, USA**USA

JOURNAL: Official Gazette of the United States Patent and Trademark Office

Patents 1228 (4): Nov. 23, 1999 1999

MEDIUM: e-file

ISSN: 0098-1133

DOCUMENT TYPE: Patent

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: Breathing circuits for medical **respiratory** devices which have an inspiratory **conduit** for delivery of respiration-related aeriform substances to a patient, may also have a **expiratory conduit**, and, in any case are arranged to communicate with a patient interface, such as a wye (14), and have heating means for respiration-related aeriform substances in at least the inspiratory **conduit**. The heating means may be a heated- **liquid** heating **tube** (11) within at least the inspiratory **conduit** or an electrical heating wire (38) on or in an inspiratory **conduit** comprising **respiratory** hose (37). The **tube** is in circulatory relationship with a heated- **liquid** reservoir (13) and is arranged internally to contain heated **liquid** (30) from the reservoir, and to transfer heat from the **liquid** --by radiation and conduction from the **tube** wall--to the substances in the **conduit**. **This transferred heat tends to inhibit or to control formation of dangerous aqueous condensate** from the substances by compensating heat losses they otherwise sustain, enhancing their capacity to retain water **vapor** and providing an intra-**conduit** environment in which the condensate is unlikely to form. A manifold (12) enables the **tube** to extend to the **expiratory conduit**.

13/7/8 (Item 4 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

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0005675969 BIOSIS NO.: 198784030118

FINANCIAL ADVANTAGES OF USING ISOFLURANE IN A CLOSED CIRCUIT

AUTHOR: BOULOGNE P (Reprint); DEMONTUOX M H; COLIN D; FEISS P

AUTHOR ADDRESS: DEP D'ANESTHESIE-REANIMATION, HOPITAL UNIV DUPUYTREN, F 87042 LIMOGES**FRANCE

JOURNAL: Annales Francaises d'Anesthesie et de Reanimation 6 (1): p54-56 1987

ISSN: 0750-7658

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: FRENCH

ABSTRACT: The present study was designed to assess whether isoflurane requirement was significantly affected by fresh **gas flow** in a closed-**circuit** system. Sixty patients scheduled for orthopaedic procedures were randomly assigned into three groups. In group A (n = 20), anaesthesia was conducted with a fresh **gas flow** of 482.5 +/- 186.6 ml .cntdot. min-1, corresponding to the patient's metabolic demand. In group B (n = 20), the fresh **gas flow** was 2000 ml .cntdot. min-1. In group C (n = 20), it was adjusted to the ventilation minute, i.e. 7145 +/- 986 ml .cntdot. min-1. Artificial ventilation was conducted using a tidal volume of 10 ml .cntdot. kg-1 and rate of 10 to 12 c .cntdot. min-1. Anaesthesia was induced after 10 min denitrogenation with fentanyl (4 .mu.g .cntdot. kg-1), thiopentone (4 mg .cntdot. kg-1) and vecuronium (0.1 mg .cntdot. kg-1). FIO2 was then brought to 0.5 in nitrous oxide and was monitored continuously using a polarographic oxymeter. **Liquid** isoflurane was injected in the **expiratory limb** of the **circuit** using an electrical syringe driver. Alveolar concentration of isoflurane was set at 0.92 vol.

% according to Lowe and Ernst [5]. Statistical analysis was carried out using Student's test for means. Anaesthesia lasted 138 \pm 88.3 min in group A, 125.5 \pm 45.1 min in group B and 146.5 \pm 50 min in group C, no difference being significant. The requirements in **liquid** isoflurane for the first hour were 5.85 \pm 1.32 ml in group A, 10.75 \pm 1.12 ml in group B and 67.15 \pm 19.51 ml in group C. The total isoflurane consumption reached 11.32 \pm 6.73 ml in group A, 19.20 \pm 7.12 ml in group B and 157.20 \pm 40.41 ml in group C. The cost of isoflurane during the first hour (in US dollars; 1 US\$ = 6,14 FF) was 4.30 \pm 0.97 in group A, 7.79 \pm 0.93 in group B and 49.32 \pm 14.33 in group C. The total cost reached 8.28 \pm 4.94 in group A, 14.10 \pm 5.23 in group B and 115.47 \pm 29.68 in group C. The difference in consumption and expense between groups A, B and C were significant ($p < 0.001$). As isoflurane is 4.4 times more expensive than enflurane and 9.7 more than halothane, the dramatic saving with closed-**circuit** anaesthesia led to save a large sum of money, thus compensating the expenses for **gas** and **vapour** analysers which increase the security of low **flow** anaesthesia.

File 149:TGG Health&Wellness DB(SM) 1976-2006/Feb W4
(c) 2006 The Gale Group
File 135:NewsRx Weekly Reports 1995-2006/Mar W1
(c) 2006 NewsRx
File 129:PHIND(Archival) 1980-2006/Mar W1
(c) 2006 Informa UK Ltd
File 441:ESPICOM Pharm&Med DEVICE NEWS 2006/Oct W5
(c) 2006 ESPICOM Bus.Intell.
File 16:Gale Group PROMT(R) 1990-2006/Mar 14
(c) 2006 The Gale Group
File 160:Gale Group PROMT(R) 1972-1989
(c) 1999 The Gale Group
File 148:Gale Group Trade & Industry DB 1976-2006/Mar 13
(c) 2006 The Gale Group
File 621:Gale Group New Prod.Annou.(R) 1985-2006/Mar 13
(c) 2006 The Gale Group
File 9:Business & Industry(R) Jul/1994-2006/Mar 13
(c) 2006 The Gale Group

Set	Items	Description
S1	1115	(BREATHING OR AIRWAY OR EXHALAT? OR EXPIRATORY) () (TUBE OR - TUBES OR CIRCUIT? ? OR CONDUIT? ? OR FLOW() PASSAGE? ?)
S2	68	UNILIMB OR UNILIMBS OR (UNI OR EXPIRATORY OR EXHALAT?) () (L- IMB OR LIMBS)
S3	19	(HYDROPHILIC OR HYDROPHILIC) (5N) (THERMOPLASTIC? ? OR PERF- LUORINATED() POLYMER? ? OR (WOVEN(1W) (FABRIC? ? OR MATERIAL? ?-)) (2N) TREATED OR POLYESTER() BLOCK() COPOLYMER? ?)
S4	610	NAFION OR SYMPATEX OR BUTANEDIOL() POLYETHYLENE() GLYCOL() TE- REPHTHALIC() ACID OR BUTYLENE() GLYCOL() POLYETHYLENE() GLYCOL() T- EREPHTHALIC() ACID OR PERFLUOROCARBON() POLYMER? ?
S5	584	(REDUC??? OR DECREAS??? OR LOWER???) (3N) (CONDENSATION OR H- UMIDIFICATION)
S6	57212	VAPOR OR VAPOUR
S7	624399	FLUID OR LIQUID OR RESPIRATORY() (GAS OR GASES)
S8	3	S1:S2 AND S3:S5 [too recent]
S9	11	S1:S2 AND S6 AND S7

9/3,K/9 (Item 9 from file: 149)

DIALOG(R) File 149:TGG Health&Wellness DB(SM)

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01351026 SUPPLIER NUMBER: 11873099 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Pulse oximetry and capnography in intensive and transitional care units.

(summary from the Medical-Surgical Critical Care Conference, Harbor-UCLA
Medical Center)

Bongard, Fred; Sue, Darryl

The Western Journal of Medicine, v156, n1, p57(8)

Jan, 1992

PUBLICATION FORMAT: Magazine/Journal ISSN: 0093-0415 LANGUAGE: English

RECORD TYPE: Fulltext TARGET AUDIENCE: Professional

WORD COUNT: 7278 LINE COUNT: 00628

... the quality of patient care are lacking. Principles of Capnography
Carbon dioxide is the second **respiratory gas** of interest in
critical care patients. Until recently, carbon dioxide was measured
clinically only by...

...the barometric pressure (about 760 mm of mercury) and PH[sub.2]O is the
vapor pressure of water (about 47 mm of mercury).

The successful application of capnometry requires an...well-perfused

alveoli receive no ventilation ($V/Q = 0$). Because these alveoli do not receive **respiratory gas**, they **decrease** the oxygenation of the blood more than they affect either the $ETco$ [sub...of both **gases**].

The optical sensor may be placed in line with the patient's **breathing circuit** (in-line system), or **gas** may reach it through a small adapter hooked to the...

...supplemental oxygen can be entrained through the sampling cannula. Because the expired **gas** contains water **vapor** at the patient's body temperature, **condensation** in the sampling **tube** and at the optical...

File 65:Inside Conferences 1993-2006/Mar 14
(c) 2006 BLDSC all rts. reserv.
File 95:TEME-Technology & Management 1989-2006/Mar W2
(c) 2006 FIZ TECHNIK
File 99:Wilson Appl. Sci & Tech Abs 1983-2006/Feb
(c) 2006 The HW Wilson Co.
File 431:MediConf: Medical Con. & Events 1998-2004/Oct B2
(c) 2004 Dr. R. Steck
File 6:NTIS 1964-2006/Feb W4
(c) 2006 NTIS, Intl Cpyrght All Rights Res
File 8:Ei Compendex(R) 1970-2006/Mar W1
(c) 2006 Elsevier Eng. Info. Inc.

Set	Items	Description
S1	130	(BREATHING OR AIRWAY OR EXHALAT? OR EXPIRATORY) () (TUBE OR - TUBES OR CIRCUIT? ? OR CONDUIT? ? OR FLOW() PASSAGE? ?)
S2	7	UNILIMB OR UNILIMBS OR (UNI OR EXPIRATORY OR EXHALAT?) () (L-IMB OR LIMBS)
S3	25	(HYDROPHILIC OR HYDROPHILLIC) (5N) (THERMOPLASTIC? ? OR PERF-LUORINATED() POLYMER? ? OR (WOVEN(1W) (FABRIC? ? OR MATERIAL? ?-)) (2N) TREATED OR POLYESTER() BLOCK() COPOLYMER? ?)
S4	4115	NAFION OR SYMPATEX OR BUTANEDIOL() POLYETHYLENE() GLYCOL() TEREPHTHALIC() ACID OR BUTYLENE() GLYCOL() POLYETHYLENE() GLYCOL() TEREPHTHALIC() ACID OR PERFLUOROCARBON() POLYMER? ?
S5	601	(REDUC??? OR DECREAS??? OR LOWER???) (3N) (CONDENSATION OR HUMIDIFICATION)
S6	242960	VAPOR OR VAPOUR
S7	791587	FLUID OR LIQUID OR RESPIRATORY() (GAS OR GASES)
S8	0	S1:S2 AND S3:S5
S9	2	S1:S2 AND S6 AND S7 [not relevant]

File 635:Business Dateline(R) 1985-2006/Mar 14
(c) 2006 ProQuest Info&Learning
File 636:Gale Group Newsletter DB(TM) 1987-2006/Mar 13
(c) 2006 The Gale Group
File 624:McGraw-Hill Publications 1985-2006/Mar 14
(c) 2006 McGraw-Hill Co. Inc

Set	Items	Description
S1	201	(BREATHING OR AIRWAY OR EXHALAT? OR EXPIRATORY) () (TUBE OR - TUBES OR CIRCUIT? ? OR CONDUIT? ? OR FLOW() PASSAGE? ?)
S2	3	UNILIMB OR UNILIMBS OR (UNI OR EXPIRATORY OR EXHALAT?) () (L-IMB OR LIMBS)
S3	3	(HYDROPHILIC OR HYDROPHILLIC) (5N) (THERMOPLASTIC? ? OR PERF-LUORINATED() POLYMER? ? OR (WOVEN(1W) (FABRIC? ? OR MATERIAL? ?-)) (2N) TREATED OR POLYESTER() BLOCK() COPOLYMER? ?)
S4	252	NAFION OR SYMPATEX OR BUTANEDIOL() POLYETHYLENE() GLYCOL() TEREPHTHALIC() ACID OR BUTYLENE() GLYCOL() POLYETHYLENE() GLYCOL() TEREPHTHALIC() ACID OR PERFLUOROCARBON() POLYMER? ?
S5	61	(REDUC??? OR DECREAS??? OR LOWER???) (3N) (CONDENSATION OR HUMIDIFICATION)
S6	17531	VAPOR OR VAPOUR
S7	124344	FLUID OR LIQUID OR RESPIRATORY() (GAS OR GASES)
S8	0	S1:S2 AND S3:S5
S9	2	S1:S2 AND S6 AND S7 [not relevant]

File 31:World Surface Coatings Abs 1976-2006/Feb
 (c) 2006 PRA Coat. Tech. Cen.

File 35:Dissertation Abs Online 1861-2006/Feb
 (c) 2006 ProQuest Info&Learning

File 67:World Textiles 1968-2006/Mar
 (c) 2006 Elsevier Science Ltd.

File 96:FLUIDEX 1972-2006/Feb
 (c) 2006 Elsevier Science Ltd.

File 323:RAPRA Rubber & Plastics 1972-2006/Feb
 (c) 2006 RAPRA Technology Ltd

Set	Items	Description
S1	44	(BREATHING OR AIRWAY OR EXHALAT? OR EXPIRATORY) () (TUBE OR - TUBES OR CIRCUIT? ? OR CONDUIT? ? OR FLOW() PASSAGE? ?)
S2	2	UNILIMB OR UNILIMBS OR (UNI OR EXPIRATORY OR EXHALAT?) () (L- IMB OR LIMBS)
S3	97	(HYDROPHILIC OR HYDROPHILLIC) (5N) (THERMOPLASTIC? ? OR PERF- LUORINATED() POLYMER? ? OR (WOVEN(1W) (FABRIC? ? OR MATERIAL? ?-)) (2N) TREATED OR POLYESTER() BLOCK() COPOLYMER? ?)
S4	1253	NAFION OR SYMPATEX OR BUTANEDIOL() POLYETHYLENE() GLYCOL() TE- REPHTHALIC() ACID OR BUTYLENE() GLYCOL() POLYETHYLENE() GLYCOL() T- EREPHTHALIC() ACID OR PERFLUOROCARBON() POLYMER? ?
S5	207	(REDUC??? OR DECREAS??? OR LOWER???) (3N) (CONDENSATION OR H- UMIDIFICATION)
S6	36355	VAPOR OR VAPOUR
S7	305761	FLUID OR LIQUID OR RESPIRATORY() (GAS OR GASES)
S8	0	S1:S2 AND S3:S5
S9	0	S1:S2 AND S6 AND S7

(FILE 'HOME' ENTERED AT 14:36:42 ON 14 MAR 2006)
 FILE 'HCAPLUS' ENTERED AT 14:36:52 ON 14 MAR 2006

L1	111 S	(BREATHING OR AIRWAY OR EXHALAT? OR EXPIRATORY) (W) (TUBE OR TU
L2	14 S	UNILIMB# OR UNI LIMB# OR EXPIRATORY LIMB# OR EXHALAT? (W) LIMB#
L3	11743 S	NAFION OR SYMPATEX OR BUTANEDIOL() POLYETHYLENE GLYCOL() TEREPH
L4	365898 S	CONDENSATION OR HUMIDIFICATION OR CONDENSATE
L5	503799 S	VAPOR OR VAPOUR
L6	810905 S	LIQUID#
L7	936 S	RESPIRATORY GAS##
L8	86701 S	HYDROPHILIC OR HYDROPHILLIC
L9	718 S	POLYESTER BLOCK COPOLYMER#
L10	112290 S	THERMOPLASTIC# OR PERFLUORINATED POLYMER#
L11	8822 S	WOVEN MATERIAL# OR WOVEN FABRIC#
L12	0 S	(L1 OR L2) AND (L3 OR L8 (3N) (L9 OR L10 OR L11))
L13	1 S	(L1 OR L2) AND L8
L14	1 S	(L1 OR L2) AND L5 AND L6 AND L7
L15	1 S	L14 NOT L13 [a duplicate]
L16	8 S	(L1 OR L2) AND L4
L17	7 S	L16 NOT (L13 OR L14) [not relevant]

File 350:Derwent WPIX 1963-2006/UD,UM &UP=200617

(c) 2006 Thomson Derwent

File 347:JAPIO Nov 1976-2005/Nov(Updated 060302)

(c) 2006 JPO & JAPIO

Set	Items	Description
S1	897	(BREATHING OR AIRWAY OR EXHALAT? OR EXPIRATORY) () (TUBE OR - TUBES OR CIRCUIT? ? OR CONDUIT? ? OR FLOW() PASSAGE? ?)
S2	28	UNILIMB OR UNILIMBS OR (UNI OR EXPIRATORY OR EXHALAT?) () (L- IMB OR LIMBS)
S3	603	(HYDROPHILIC OR HYDROPHILLIC) (5N) (THERMOPLASTIC? ? OR PERF- LUORINATED() POLYMER? ? OR (WOVEN(1W) (FABRIC? ? OR MATERIAL? ?-)) (2N) TREATED OR POLYESTER() BLOCK() COPOLYMER? ?)
S4	1072	NAFION OR SYMPATEX OR BUTANEDIOL() POLYETHYLENE() GLYCOL() TE- REPHTHALIC() ACID OR BUTYLENE() GLYCOL() POLYETHYLENE() GLYCOL() T- EREPHTHALIC() ACID OR PERFLUOROCARBON() POLYMER? ?
S5	2228	(REDUC??? OR DECREAS??? OR LOWER???) (3N) (CONDENSATION OR H- UMIDIFICATION)
S6	253877	VAPOR OR VAPOUR
S7	2011949	FLUID OR LIQUID OR RESPIRATORY() (GAS OR GASES)
S8	12	S1:S2 AND S3:S5
S9	11	S1:S2 AND S6 AND S7
S10	9	S9 NOT S8
S11	14625	IC=(A61M-015? OR A61M-016?)
S12	26	S3:S5 AND S11
S13	167	S6 AND S7 AND S11
S14	16	S12 NOT S8:S9
S15	27	S6/TI AND S7/TI AND S11
S16	23	S15 NOT (S8 OR S9 OR S12)

8/26,TI/1 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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016917614

WPI Acc No: 2005-241902/200525

Heating wire assembly for reducing condensation in breathing tube delivering humidified gas to patient comprises thermally responsive sensors at discrete locations along heating wire assembly and terminated for connection to assembly end

8/26,TI/2 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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016707108

WPI Acc No: 2005-031384/200503

Heating wire assembly for reducing condensation in breathing tube delivering humidified gas has ribbon shaped carrier configured to hold heating wire at periphery and temperature sensors for sensing temperature of gas in tube

8/34/3 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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016696185 **Image available**

WPI Acc No: 2005-020464/200502

Nasal cannula for delivering respiratory gases to neonatal infants, comprises a manifold including a chamber, gases inlet and outlet and low resistance

path for gases, and nasal prongs in communication with the chamber

Patent Assignee: LECKIE M (LECK-I); OLSEN G J (OLSE-I); PRIME N (PRIM-I)

Inventor: LECKIE M; OLSEN G J; PRIME N

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20040244804	A1	20041209	WO 2002NZ180	A	20020913	200502 B
			US 2004489159	A	20040803	

Priority Applications (No Type Date): NZ 514184 A 20010913

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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US 20040244804	A1		16	A61M-016/00	
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Abstract (Basic): US 20040244804 A1

NOVELTY - A nasal cannula (100) comprises:

(i) a manifold including a chamber (10), a **gases** inlet (16) to engage an inspiratory **conduit**, an outlet (12) to engage an **expiratory conduit** and a low resistance path for the **gases** through the chamber from inlet to outlet; and

(ii) nasal prongs (116, 118) in **fluid** communication with the chamber with each prong equidistant from the inlet

DETAILED DESCRIPTION - A nasal cannula (100) comprises:

(i) a manifold including a chamber (10), a **gases** inlet (16) to engage an inspiratory **conduit**, an outlet (12) to engage an **expiratory conduit** and a low resistance path for the **gases** through the chamber from inlet to outlet; and

(ii) nasal prongs (116, 118) in **fluid** communication with the chamber with each prong equidistant from the inlet.

The cannula includes a strap or an infant bonnet to hold the prongs in place in the nares of the neonate.

An INDEPENDENT CLAIM is included for a system for delivering **respiratory gases** in a neonatal infant comprising the nasal cannula.

USE - For delivering **respiratory gases** to neonatal infants (claimed).

ADVANTAGE - The cannula is equally applicable for patients of all sizes and the design is easily scalable. The inlet manifold has a notch or indentation in its uppermost portion between the two nasal prongs designed such that there will be no contact with the septum. This is in contrast with prior art where contact with the septum resulted in irritation and pressure necrosis. There is some **flow** flowing directly from the inlet manifold to the outlet manifold. This ensures that the deadspace or tidal volume is limited to the volume of the prongs. This configuration results in minimum build-up of expired CO2 and also **reduces** any opportunity for **condensation** in the cannula.

DESCRIPTION OF DRAWING(S) - The figure shows a block diagram of continuous positive air pressure system.

chamber (10)

gas outlet (12)

gas inlet (16)

nasal cannula (100)

nasal prongs. (116, 118)

pp; 16 DwgNo 11/12

Derwent Class: B07; P34

International Patent Class (Main): A61M-016/00

DIALOG(R)File 350:Derwent WPIX
(c) 2006 Thomson Derwent. All rts. reserv.
016635798 **Image available**
WPI Acc No: 2004-794511/200478

Medical device e.g. endotracheal tube comprises conduit comprising a wall made of a hydrophobic polymer with outer layer composed of hydrophilic thermoplastic polyurethane and an antimicrobial compound disposed on outer surface of wall

Patent Assignee: MALLINCKRODT INC (MLCW); MARTENS P W (MART-I); NIETO R L (NIET-I); VIRAG R (VIRA-I)

Inventor: MARTENS P; NIETO R; VIRAG R; MARTENS P W; NIETO R L

Number of Countries: 109 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20040220534	A1	20041104	US 2003425030	A	20030429	200478 B
WO 200496330	A2	20041111	WO 2004US13196	A	20040429	200478
EP 1617890	A2	20060125	EP 2004760444	A	20040429	200608
			WO 2004US13196	A	20040429	

Priority Applications (No Type Date): US 2003425030 A 20030429

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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US 20040220534	A1		10	A61M-029/00	
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WO 200496330	A2	E		A61M-016/00	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ
CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID
IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ
NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ
UA UG US UZ VC VN YU ZA ZM ZW

Designated States (Regional): AT BE BG BW CH CY CZ DE DK EA EE ES FI FR
GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL
SZ TR TZ UG ZM ZW

EP 1617890	A2	E		A61M-016/00	Based on patent WO 200496330
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Designated States (Regional): AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HR HU IE IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR

Abstract (Basic): US 20040220534 A1

NOVELTY - A medical device comprises **conduit** for **fluid** comprising a wall made of hydrophobic **polymer** with outer layer composed of medical grade **hydrophilic thermoplastic** polyurethane and antimicrobial compound (I) disposed on outer surface of wall. (I) comprises a phosphorus-based glass having a metal substantially dispersed on it. The wall and the outer layer are formed by extrusion.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) manufacturing of the medical device;
- (2) a system for making the medical device.

USE - As a medical device, e.g. endotracheal **tube**, catheter, stent, feeding **tube**, **breathing circuit**, intravenous **tube**, **circuit**, **airway** accessory, connector, adapter, filter, humidifier, nebulizer, and prosthetic (claimed) for used around or inserted into a living body.

ADVANTAGE - The antimicrobial layer on the device **reduces** the incidence of ventilator-associated pneumonia without extensive reliance on large doses of antibiotics, without extensive reliance on suctioning and without requiring additional activities on the part of clinician; and **reduces** production cost.

DESCRIPTION OF DRAWING(S) - The figure shows a plan view of a medical device.

medical device (100)
conduit (102)
inflate cuff (104)
wall (112)
lumen. (116)
pp; 10 DwgNo 2/4

Technology Focus:

TECHNOLOGY FOCUS - METALLURGY - Preferred Component: The metal is copper, gold, powdered silver, substantially elemental silver, silver ions and/or silver oxide.

POLYMERS - Preferred Component: The hydrophobic **polymer** is polyvinylchloride, polyethylene, polyurethane, polydimethylsiloxane, **polyester**, silicone, or rubber.

Derwent Class: A32; A96; B07; D22; P32; P34

International Patent Class (Main): A61M-016/00; A61M-029/00

International Patent Class (Additional): A61F-002/00; A61L-027/00;
A61L-029/00; A61L-029/08; A61L-029/16; A61M-005/00; A61M-005/14;
A61M-016/04; A61M-039/00; B29C-047/06

8/34/7 (Item 7 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014047377 **Image available**

WPI Acc No: 2001-531590/200159

Filter for respiratory circuit for medical applications, includes surrounding outer wall formed by snap-fitted cover members, to insulate filter housing

Patent Assignee: FISHER & PAYKEL HEALTHCARE LTD (FISH-N); FISHER & PAYKEL LTD (FISH-N); BATTY N C (BATT-I); BLACKHURST M J (BLAC-I)

Inventor: BATTY N C; BLACKHURST M J

Number of Countries: 030 Number of Patents: 007

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1129743	A2	20010905	EP 2001105106	A	20010302	200159 B
CA 2337309	A1	20010902	CA 2337309	A	20010302	200159
US 20010029949	A1	20011018	US 2001798303	A	20010302	200166
JP 2001299918	A	20011030	JP 200158620	A	20010302	200204
AU 200124874	A	20020704	AU 200124874	A	20010302	200255
US 6619287	B2	20030916	US 2001798303	A	20010302	200362
AU 781522	B2	20050526	AU 200124874	A	20010302	200540

Priority Applications (No Type Date): NZ 503213 A 20000302

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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EP 1129743	A2	E	8	A61M-016/10	
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Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
LI LT LU LV MC MK NL PT RO SE SI TR

CA 2337309	A1	E		A61M-016/00	
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US 20010029949	A1			A62B-009/04	
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JP 2001299918	A		21	A61M-016/00	
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AU 200124874	A			A61M-016/00	
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US 6619287	B2			A62B-007/10	
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AU 781522	B2			A61M-016/00	Previous Publ. patent AU 200124874
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Abstract (Basic): EP 1129743 A2

NOVELTY - The filter has a housing with an inlet port and an outlet port for connection to respective **breathing tubes** . A **gases** space lies between the inlet and outlet ports and **gases** pass across the **gases**

space from the inlet port to the outlet port in use. A filter media (7) spans the **gases** space dividing the **gases** space into an inlet chamber and an outlet chamber. **Gases** passing from the inlet port to the outlet port pass through the filter media.

DETAILED DESCRIPTION - A surrounding outer wall (10) formed by cover members (14) surrounds the housing apart from the inlet port and outlet port and is spaced from the wall of the housing. One or more air pockets (11,12) are created between the outer wall and the housing. The cover members are snap-fitted together. The air pockets insulate the housing from ambient conditions.

USE - E.g. as an anti-bacterial filter in **circuits** providing **breathing** assistance and/or administration of anaesthetics during surgical procedures.

ADVANTAGE - **Reduces** possibility of **condensation** build-up in the filter.

DESCRIPTION OF DRAWING(S) - The drawing shows a cross-sectional view of the filter.

Filter media (7)
Outer wall (10)
Air pockets (11,12)
Cover members (14)
pp; 8 DwgNo 1/2

Derwent Class: P34; P35

International Patent Class (Main): A61M-016/00; A61M-016/10; A62B-007/10; A62B-009/04

International Patent Class (Additional): A61M-016/01; A62B-019/00; A62B-023/02; B01D-039/00; B01D-039/08; B01D-046/00; B01D-046/42

8/34/8 (Item 8 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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013385629 **Image available**

WPI Acc No: 2000-557567/200051

Endotracheal anti-fog airway adapter for use with a mainstream respiratory gas analyzer to prevent fogging by the patient's breath, has a pair of thin plastic windows and a non-toxic anti-fog surfactant

Patent Assignee: SQUARE ONE TECHNOLOGY INC (SQUA-N)

Inventor: BRAIG J R; GOLDBERGER D S; HERRERA R O; YELDERMAN M L

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6095986	A	20000801	US 98123232	A	19980728	200051 B

Priority Applications (No Type Date): US 98123232 A 19980728

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 6095986	A	17	A61B-005/08	

Abstract (Basic): US 6095986 A

NOVELTY - An endotracheal **airway** adapter has windows from thin low high capacity plastic that rapidly equilibrates to the temperature of the warm moist **gases** in the patient **breathing circuit**. An anti-fog surfactant coats the windows and increases the wetting tension of the surface it covers as windows are placed in the **respiratory** airstream of a patient.

DETAILED DESCRIPTION - An endotracheal **airway** adapter for use in a patient's **respiratory** airstream near patient's mouth during

quantitative measurement of the concentration of the constituents of the patient using a **respiratory gas** analyzer (40) having infrared transmission and detection devices disposed in a housing which receives the **airway** adapter, comprises tubular portions, a pair of plastic optical windows (20), and a non-toxic anti-fog surfactant. The tubular portions have a **material** that is slightly deformable and has oppositely disposed openings in a width-wise direction. It lies on an optical path between the infrared transmission and detection devices when received by the **gas** analyzer housing (30). The plastic windows are respectively disposed over the openings of the tubular portion to form an airtight seal so that they are at a predetermined distance during the process. The windows pass infrared energy from the infrared transmission device to the detection device. The non-toxic surfactant treats the windows to prevent fogging when the windows are placed in the patient's **respiratory** airstream.

An INDEPENDENT CLAIM is also included for a method for forming the endotracheal **airway** adapter comprising respectively disposing the thin plastic windows in a widthwise direction which lie on an optical path between the infrared transmission and detection devices where infrared is passed. The windows are then treated with the non-toxic anti-fog surfactant to prevent fogging of the windows when they are placed in the patient's **respiratory** airstream.

USE - As an anti-fog **airway** adapter for use with a mainstream **respiratory gas** analyzer to prevent fogging by the patient's breath.

ADVANTAGE - The cheap and disposable **airway** adapter prevents water **condensation** which may **reduce** signal strength of the infrared energy, thus resisting fogging by shedding any **liquid** which might obstruct the optical path during **respiratory gas** analysis.

DESCRIPTION OF DRAWING(S) - The figure shows a perspective view of a mainstream infrared **gas** analyzer and a disposable **airway** adapter.

Optical windows (20)

Gas analyzer housing (30)

Gas analyzer (40)

pp; 17 DwgNo 1/8

Technology Focus:

TECHNOLOGY FOCUS - **POLYMERS** - Preferred Components: The tubular portion is formed from a **material** including a polycarbonate, styrene acrylonitrile, or aluminum. The windows are formed from a **material** including **polyester**, polypropylene, or polyethylene. It comprise a single plastic layer impregnated with the anti-fog surfactant to form an anti-fog film of 1-1.5 mil thick. A heat seal adhesive forms the airtight seal between the anti-fog film and the tubular portion. The thin plastic windows has a stretched sheet of **polymer** film. The adapter has a pair of frames to which the stretched sheets are heat sealed to form the respective window frame assemblies to be placed in the oppositely disposed openings.

INSTRUMENTATION AND TESTING - Preferred Method: A thin copper layer is disposed between the anti-fog film and the tubular portion to distribute the heat from the infrared transmission device over the tubular portion surface. A surfactant has a solution, which forms a layer over the windows when poured into the **airway** adapter. The solution is then drained followed by drying the windows in warm air. A **tube** is heat shrunk to cover the disposed openings in the tubular portion. A drum band is disposed in the window frame assemblies to hold them in place, and a **tube** is heat shrunk about the tubular portions to cover the respective oppositely disposed openings.

Derwent Class: A96; P31
International Patent Class (Main): A61B-005/08

8/34/10 (Item 10 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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011279914 **Image available**

WPI Acc No: 1997-257817/199723

**Insulated breathing tube for preventing heat loss - has air impervious
corrugated tube carrying respiratory gases with casing of set ratio**

Patent Assignee: SMITH C A (SMIT-I)

Inventor: SMITH C A

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5623922	A	19970429	US 86910625	A	19860923	199723 B
			US 8719248	A	19870226	
			US 88275940	A	19881125	
			US 90593555	A	19901009	
			US 92900995	A	19920619	
			US 95367733	A	19950103	

Priority Applications (No Type Date): US 95367733 A 19950103; US 86910625 A
19860923; US 8719248 A 19870226; US 88275940 A 19881125; US 90593555 A
19901009; US 92900995 A 19920619

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 5623922	A	10	A61M-016/00	CIP of application US 86910625 CIP of application US 8719248 CIP of application US 88275940 CIP of application US 90593555 CIP of application US 92900995 CIP of patent US 5377670

Abstract (Basic): US 5623922 A

A thin flexible partially longitudinally compressed casing is provided to surround a thicker corrugated **tube** to provide an insulating dead air space between. In a second form selected enlarged corrugations are provided in spaced relation along the corrugated **tube** to engage the inner surface of the casing in a preselected spaced arrangement with respect to the corrugated **tube** to compartmentalize insulating dead air spaces between the **tube** and the casing.

ADVANTAGE - Prevents heat loss from the inhalant **gas** in a recirculatory aided **breathing circuit** reducing internal vapor **condensation** commonly associated with such **breathing circuits** while also stabilizing the relative temperature and humidity within such **breathing circuits** .

Dwg.4/6

Derwent Class: P34; P35; Q74

International Patent Class (Main): A61M-016/00

International Patent Class (Additional): A62B-007/00; F24J-003/00

8/34/11 (Item 11 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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010149535 **Image available**

WPI Acc No: 1995-050787/199507

Insulated breathing tube used with recirculatory aided breathing circuit - has corrugated tube located within insulated casing, with circulating dead air space between them

Patent Assignee: SMITH C A (SMIT-I)

Inventor: SMITH C A

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5377670	A	19950103	US 86910625	A	19860923	199507 B
			US 8719248	A	19870226	
			US 88275940	A	19881125	
			US 90593555	A	19901009	
			US 92900995	A	19920619	

Priority Applications (No Type Date): US 92900995 A 19920619; US 86910625 A 19860923; US 8719248 A 19870226; US 88275940 A 19881125; US 90593555 A 19901009

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5377670	A		10	A61M-016/00	CIP of application US 86910625 CIP of application US 8719248 CIP of application US 88275940 CIP of application US 90593555

Abstract (Basic): US 5377670 A

The insulated **breathing tube** arrangement includes a thin flexible partially longitudinally compressed casing surrounding a thicker corrugated **tube**. The thin casing allows for hairpin bending of the **breathing tube** arrangement and provides an insulating dead air space around the corrugated **tube**.

In another arrangement selected enlarged corrugations are provided in spaced relation along the corrugated **tube** to engage the inner surface of the casing in a preselected spaced arrangement with respect to the corrugated **tube** to compartmentalize insulating dead air spaces between the **tube** and the casing.

USE/ADVANTAGE - An insulated **breathing tube** arrangement to prevent heat loss from the inhalant **gas** in a recirculatory aided **breathing circuit** thereby **reducing** internal vapour condensation commonly associated with such **breathing circuits** while also stabilizing the relative temperature and humidity within such **breathing circuits**.

Dwg.1/6

Derwent Class: P34; P35; Q74

International Patent Class (Main): A61M-016/00

International Patent Class (Additional): A61M-005/32; A62B-007/00; F24J-003/00

8/34/12 (Item 12 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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008105399

WPI Acc No: 1989-370510/198950

Patient interfacing system for sampling breathing gases - has separator section to allow vaporised moisture component of sample to exit interface before reaching monitoring instrument

Patent Assignee: BOC HEALTH CARE INC (BRTO); ALBION INSTRUMENTS (ALBI-N)

Inventor: COLEMAN D L; DE NEVERS N; OWEN C V; DENEVERS N

Number of Countries: 016 Number of Patents: 007

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 8911245	A	19891130	WO 89US1974	A	19890509	198950 B
AU 8935717	A	19891212				199010
EP 418267	A	19910327	EP 89905879	A	19890509	199113
JP 3504206	W	19910919				199144
US 5233996	A	19930810	US 88196725	A	19880520	199333
			US 90559502	A	19900723	
			US 91647170	A	19910124	
CA 1325115	C	19931214	CA 600193	A	19890519	199405
EP 418267	A4	19910807	EP 89905879	A	19890000	199518

Priority Applications (No Type Date): US 88196725 A 19880520; US 90559502 A 19900723; US 91647170 A 19910124

Cited Patents: US 3507146; US 4425804; US 4727871; US 3649199; US 4167667; US 4549553

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 8911245	A	E	25		
					Designated States (National): AU JP KR
					Designated States (Regional): AT BE CH DE FR GB IT LU NL SE
EP 418267	A				
					Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE
US 5233996	A		9	A61B-005/08	Cont of application US 88196725
					Cont of application US 90559502

CA 1325115 C A61B-005/08

Abstract (Basic): WO 8911245 A

A patient link (20) receives the **gases** from the patient's **airway circuit** (11) and a **vaporisation** section (30) vaporises condensed moisture in the sample. A separator section (40) allows the **vaporised** moisture component of the sample to exit the patient interfacing system (10) before the **gas** sample reaches the monitoring instrument (12).

A filter (70) may also be utilised to prevent condensed moisture, particulates and **liquids** from entering the monitoring instrument (12). The patient interfacing system provides a reliable, cost effective and efficient means for delivering **gas** samples to a monitoring instrument which **reduces** or prevents water **condensation** inside the **gas** analysis portion of the monitoring instrument (12).

USE - For sampling the inspired and expired **gases** of a patient and removing moisture from the sample.

1/5

Abstract (Equivalent): US 5233996 A

A patient link receives the **gases** from the patient's **airway circuit** and a **vaporisation** section **vaporises** condensed moisture in the sample. A separator section allows the **vaporised** moisture component of the sample to exit the patient interfacing system before the **gas** sample reaches the monitoring instrument.

A filter may also be utilised to prevent condensed moisture, particulates and **liquids** from entering the monitoring instrument.

USE - A patient interfacing system for sampling the inspired and expired **gases** of a patient and removing moisture from the sample.

Dwg. 5/5

Derwent Class: P31

International Patent Class (Main): A61B-005/08

International Patent Class (Additional): A61B-007/105

10/26, TI/4 (Item 4 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015650299

WPI Acc No: 2003-712482/200367

Providing a sustained release of a dose of a pharmaceutical agent e.g. antimicrobial agent involves applying a sustained release medium and the agent to a biocompatible ophthalmological implant

10/26, TI/7 (Item 7 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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012440073

WPI Acc No: 1999-246181/199921

Liquid metering device for anesthesia systems

10/34/1 (Item 1 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.
016828087 **Image available**

WPI Acc No: 2005-152369/200516

Humidified gas delivery treatment apparatus comprises pressurized gases supply and pressurized gases outlet in housing and filter on or over inlet of humidifier

Patent Assignee: FISHER & PAYKEL HEALTHCARE LTD (FISH-N)

Inventor: KRAMER M P F; MAKINSON I D

Number of Countries: 108 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200511785	A1	20050210	WO 2004NZ166	A	20040727	200516 B

Priority Applications (No Type Date): NZ 527381 A 20030801

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 200511785	A1	E	23	A61M-016/16	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ
CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID
IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ
NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ
UA UG US UZ VC VN YU ZA ZM ZW

Designated States (Regional): AT BE BG BW CH CY CZ DE DK EA EE ES FI FR
GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL
SZ TR TZ UG ZM ZW

Abstract (Basic): WO 200511785 A1

NOVELTY - A humidified **gas** delivery treatment apparatus comprises a housing; a pressurized **gases** supply within the housing; a pressurized **gases** outlet in the housing in **fluid** connection with the pressurized **gases** supply and adapted to make **fluid** connection with an inlet of a humidifier in order to provide **gases flow** to the humidifier; and filter (100) on or over the inlet of the humidifier to filter the **gases** entering the humidifier.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a humidifier chamber for use with a **gases humidification** apparatus comprising a container with a surrounding wall and top and an open

bottom; a heat conductive base enclosing the open bottom of the container; a **gases** inlet to the container; a **gases** outlet to the container; and filter on or over the inlet to the container to filter the **gases** to the container.

USE - For use in humidified **gases** delivery treatment (claimed).

ADVANTAGE - The combined humidifier and continuous positive **airways** pressure machine is manufactured and assembled such that the humidifier chamber may be removed for cleaning, replacement or refilling easily and quickly. When the humidifier chamber is separated from the continuous positive **airways** pressure machine, the filter may also be removed for cleaning or replacement quickly and easily.

DESCRIPTION OF DRAWING(S) - The figures show a perspective view of a water chamber and continuous positive **airways** pressure (CPAP) machine and an underneath view of the water chamber including the filter of the invention.

Water chamber (2)
CPAP machine (3)
Passage (4, 7)
Gases inlet port (5)
Gases outlet port (6)
Connection manifold (8)
CPAP patient outlet port (9)
Slot (17)
Flange (18)
Chamber receiving bay (47)
Pneumatic connection (54)
Filter (100)

pp; 23 DwgNo 1, 4/8

Technology Focus:

TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Components: A humidified **gases** return in the housing is adapted to make **fluid** connection with an outlet of the humidifier in order to receive humidified **gases** from the humidifier. A patient outlet in the housing is in **fluid** connection with the humidified **gases** return in order to receive humidified **gases** from the humidified **gases** return and provide humidified **gases** to the patient outlet. The patient outlet is in **fluid** connection with or adapted to make **fluid** connection with a **breathing conduit** for delivery of humidified **gases** to a patient. The humidifier is a heatable water chamber. The delivery treatment apparatus includes a chamber heater connected to the housing. The housing includes a humidifier engagement locating the humidifier adjacent the chamber heater. The chamber heater is adapted to **vaporize liquid** water in the water chamber in order to provide water **vapor** to the **gases flow** passing through the water chamber. The **humidification** chamber has a base. The chamber is engageable with the humidifier engagement via a single motion. The single motion of engagement urges the base of the **humidification** chamber adjacent and in contact with the chamber heater and makes a first **fluid** connection between the pressurized **gases** outlet and the humidifier inlet and makes a second **fluid** connection between the humidified **gases** return and the humidifier outlet. The first and second **fluid** connections are made in the direction of the single motion. The patient outlet includes a connector for receiving a **breathing** hose and auxiliary electrical connection plug(s) or socket(s) or pneumatic connection plug(s) or port(s) for a simultaneous connection when connecting a **breathing circuit** having complementary electrical and pneumatic connectors.

Derwent Class: B07; P34
International Patent Class (Main): A61M-016/16

10/34/3 (Item 3 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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016376047 **Image available**

WPI Acc No: 2004-533954/200451

Collection of sample of non-gaseous aerosol in exhaled breath from human or animal test subject, by inhaling breath of air through filter to remove ambient aerosols, and exhaling breath of air through collector and collecting aerosols

Patent Assignee: AMIDEX INC (AMID-N)

Inventor: HOWSON D; PAZ F M; WIERNICKI M V

Number of Countries: 105 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200458064	A2	20040715	WO 2003US41087	A	20031222	200451 B
AU 2003299850	A1	20040722	AU 2003299850	A	20031222	200476
EP 1571987	A2	20050914	EP 2003800124	A	20031222	200560
			WO 2003US41087	A	20031222	

Priority Applications (No Type Date): US 2002435804 P 20021220

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
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WO 200458064	A2 E	52	A61B-005/097	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ
CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID
IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ
NI NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG UZ
VC VN YU ZA ZM ZW

Designated States (Regional): AT BE BG BW CH CY CZ DE DK EA EE ES FI FR
GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR
TZ UG ZM ZW

AU 2003299850	A1		A61B-005/097	Based on patent WO 200458064
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EP 1571987	A2 E		A61B-005/097	Based on patent WO 200458064
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Designated States (Regional): AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

Abstract (Basic): WO 200458064 A2

NOVELTY - Collection of a sample of non-gaseous aerosol in exhaled breath, comprises inhaling a breath of air through a filter to remove ambient aerosols from the breath of air; and exhaling the breath of air through a collector and collecting aerosols from the exhaled breath.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(a) an aerosol collector apparatus for collecting aerosol from exhaled breath of a test subject, comprising an aerosol collection chamber with a collection surface for collecting aerosol particles and/or droplets from exhaled breath; a conduit for channeling the exhaled breath from the test subject to the aerosol collection chamber; and a pre-collection filter positioned in close enough proximity to the aerosol collection chamber to accommodate filtering ambient air inhaled by the test subject that is composed in the exhaled breath of the test subject; and

(b) a method to assure reproducibility of the collection of non-gaseous substances suspended in exhaled breath from a human or animal test subject, comprising providing a removing mechanism to

eliminate all suspended non-gaseous particles and liquid aerosol droplets from ambient air drawn into an inlet conduit, and conducting the cleaned intake air within the conduit to a first connecting unit to the test subject's respiratory airway, and providing a first one-way valve causing air to flow in a direction from the inlet conduit to the first connecting unit, the first one-way valve being situated at any effective location in the inlet conduit, and causing the subject to inhale the cleaned intake air, and conducting the consequent exhaled breath through an exhalation conduit, and providing a second one-way valve causing air to flow in a direction from the first connecting unit through the exhalation conduit, the second one-way valve being situated at any effective location in the exhalation conduit, thus eliminating substances external to the test subject from being inhaled by the test subject, and assuring that all non-gaseous substances suspended in the exhaled breath comprise only those arising from the test subject's respiratory system.

USE - For collecting a sample of non-gaseous aerosol (e.g. analyte) in exhaled breath from a human or animal test subject (claimed) for diagnostic purposes.

ADVANTAGE - The method is comparable from one test to another, and can be used to standardized reference values for useful breath aerosol analytes.

DESCRIPTION OF DRAWING(S) - The figure is an isometric view of an electrostatic breath aerosol analyte collector.

Main housing (12)

Mouthpiece (14)

Conduit (20)

End of conduit (32)

Flow meter (80)

pp; 52 DwgNo 1/13

Technology Focus:

TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Method: The method includes controlling flow rate of the exhaled air through the collector to a desired flow rate; assisting the exhaled breath of air through the collector with a pump; and inhaling the breath of air through a first conduit (20) that contains the filter and exhaling the breath of air through a second conduit that contains the collector. The method comprises enhancing a property of the aerosol in the exhaled breath by charging the aerosol with an electrostatic charge; and creating a different electrostatic charge on a collection component to create an electrostatic attractive force between the aerosol and the collection component and applying such electrostatic force to attract the aerosol to the collection component. The method includes enhancing mass of the aerosol in the exhaled breath by super cooling air and water vapor in the exhaled breath to cause condensation of water vapor on the aerosol; and applying centrifugal force to the aerosol enhanced with the additional mass of the condensed water to increase probability of contact of the aerosol with a collection surface. Preferred Component: The aerosol collector apparatus includes an ionizer system in the conduit for ionizing gas in the exhaled breath, and where the collection surface is charged with an electrostatic voltage. The aerosol collector apparatus includes at least one valve positioned to control flow of exhaled breath through the conduit; at least one flow meter (80) positioned to measure flow rate of the exhaled breath through the chamber; and a wiper, which is positioned slidably on the collection surface for wiping the collected particles

and/or droplets off the collector surface. The apparatus includes a vortex generator in **fluid flow** relation with the collection chamber. The apparatus includes a mouthpiece (14) connected in **fluid -flow** relation to the **conduit**; and an ionizer assembly positioned in the **conduit** upstream from the collection surface. The connecting unit can be **respiratory** facemask, a **respiratory** mouthpiece, a **conduit** such as an endotracheal **tube** inserted within the subject's upper **airway**, a tracheostomy portal, a component of a ventilator **breathing circuit**, and a component of any other **respiratory** support device.

Derwent Class: B04; P31; S03; S05

International Patent Class (Main): A61B-005/097

International Patent Class (Additional): G01N-001/22; G01N-033/497

10/34/6 (Item 6 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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012880410 **Image available**

WPI Acc No: 2000-052243/200004

Respiratory device including inspiratory and expiratory conduits with heating tubes in each

Patent Assignee: PALUCH B (PALU-I)

Inventor: PALUCH B

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5988164	A	19991123	US 95509078	A	19950731	200004 B

Priority Applications (No Type Date): US 95509078 A 19950731

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5988164	A		11	A61M-016/00	

Abstract (Basic): US 5988164 A

NOVELTY - **Respiratory** device has inspiratory and **expiratory** **conduits** with a heating **tube** (11) within a portion of each **conduit**. A manifold (12) has a cross member (24) extending between parts (22,23) of the inspiratory and **expiratory** **conduits** with an internal wall (25) providing a barrier between the **conduits** (22,23), and the wall having a port (28) for transition of the heating **tube** (11) between the two **conduits**.

DETAILED DESCRIPTION - ALSO CLAIMED is the device above for transit of a humidified aeriform substance in which the heating **tube** contains heated **liquid** (30) so as compensate for heat loss of the aeriform substance to enhance the capacity to retain water **vapor** and inhibit **condensation**; the latter arrangement in which the inspiratory and **expiratory** **conduits** are connected to a 'Y' junction communicating with a common **airway**, and the latter arrangement in which the relative humidity in the inspiratory **conduit** is sensed and used to control a pump circulating heated **liquid** in the heating **tube** (11). AN INDEPENDENT CLAIM refers to a **breathing circuit** in which an electric heating wire heats an inspiratory **conduit** with the heating controlled in response to the output of a sensor of the relative humidity of the aeriform substance in the inspiratory **conduit**.

USE - In apparatus for ventilation and therapy of the lungs, administration of anesthetics and other medicaments, etc.

ADVANTAGE - Provides safe control of the relative humidity of the aeriform substance to prevent **condensation** which can be dangerous to

the patient.

DESCRIPTION OF DRAWING(S) - The figure shows the **respiratory** system
heating **tube** (11)
'Y' connector (14)
inspiratory **conduit** (17,18,22)
expiratory **conduit** (19,20,23)
pump (29)
heated water (30)
humidity sensor (33)
pp; 11 DwgNo 2/8

Extension Abstract:

EXAMPLE - In the EMBODIMENTS each **conduit** comprises first and
second hoses connected in series by the respective section of the
manifold. The heated **liquid** in the heating **tube** is water from a
reservoir, circulated by a pump (29) controlled by a humidity sensor(33).

Derwent Class: B07; P34

International Patent Class (Main): A61M-016/00

10/34/8 (Item 8 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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011332469 **Image available**

WPI Acc No: 1997-310373/199728

**Closed-circuit lung ventilation system - recirculates therapeutic chemical
gases or vapours introduced during partial liquid ventilation therapy**

Patent Assignee: ALLIANCE PHARM CORP (ALLI-N)

Inventor: FAITHFUL N S; SCHUTT E G; FAITHFULL N S

Number of Countries: 071 Number of Patents: 007

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9719719	A1	19970605	WO 96US18989	A	19961127	199728 B
AU 9711418	A	19970619	AU 9711418	A	19961127	199741
NO 9802165	A	19980717	WO 96US18989	A	19961127	199838
			NO 982165	A	19980512	
EP 873149	A1	19981028	EP 96942817	A	19961127	199847
			WO 96US18989	A	19961127	
JP 2000501306	W	20000208	WO 96US18989	A	19961127	200018
			JP 97520651	A	19961127	
US 6041777	A	20000328	US 95566023	A	19951201	200023
AU 727511	B	20001214	AU 9711418	A	19961127	200103

Priority Applications (No Type Date): US 95566023 A 19951201

Cited Patents: EP 678305; GB 2054387; US 3991790; US 4232665; WO 9103267

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 9719719	A1	E	50	A61M-016/00	
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Designated States (National): AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE
DK EE ES FI GB GE HU IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN
MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN

Designated States (Regional): AT BE CH DE DK EA ES FI FR GB GR IE IT KE
LS LU MC MW NL OA PT SD SE SZ UG

AU 9711418	A			A61M-016/00	Based on patent WO 9719719
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NO 9802165	A			A61M-000/00	
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EP 873149	A1	E		A61M-016/00	Based on patent WO 9719719
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Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE

JP 2000501306 W 73 A61M-016/00 Based on patent WO 9719719
US 6041777 A A61M-015/00
AU 727511 B A61M-016/00 Previous Publ. patent AU 9711418
Based on patent WO 9719719

Abstract (Basic): WO 9719719 A

The system includes a conventional mechanical ventilator (84) and **breathing circuit** (70,80) connected to the patient (62) by a patient connector (64) and one-way valves (66,68). An additional **circuit** (896,90,94) including a pump (92) and flexible reservoir (88) is also connected to the ventilator to form a closed **gas circuit**. A **gas** injector (82) introduces oxygen during ventilation.

Therapeutic chemicals may be introduced directly into the patient's lung or via a nebuliser (98) in the **circuit**. An absorber (72) removes carbon dioxide from the expired **gas**, but allows any exhaled therapeutic chemicals to be carried round the **circuit** and reintroduced to the patient.

ADVANTAGE - The system minimises losses to the environment of chemical substances which may be expensive, environmentally sensitive and potentially damaging to parts of the associated mechanical ventilator.

Dwg.2/6

Derwent Class: P34

International Patent Class (Main): A61M-000/00; A61M-015/00; A61M-016/00

10/34/9 (Item 9 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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003812733

WPI Acc No: 1983-808978/198345

Medical inhalation device - has vaporiser with extending funnel arrangement to prevent drips entering the breathing circuit

Patent Assignee: MEIER J (MEIE-I)

Inventor: MEIER J

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 3305159	A	19831103				198345 B
CH 654746	A	19860314				198617

Priority Applications (No Type Date): CH 822594 A 19820428

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
DE 3305159	A	10		

Abstract (Basic): DE 3305159 A

The inhalation device has a housing (1) containing a **fluid vapouriser** (2) together with a removable mouth piece (3). In order to prevent unwanted re-entry of **vapour** into the **vapour circuit**, the **vapouriser** has a funnel shaped extension piece (5) which widens out upwards towards the mouth piece.

The mouth piece has an outlet port (12) and is further provided with a condensate rib (14) positioned near to the inner wall (13) of the housing and parallel to it and having a face (4) opposite the extension piece. The **lower** edge of the condensate rib is positioned within the upper edge (16) of the extension piece. Heating of the **vapouriser** unit is provided by an element (9).

1/1

Derwent Class: P34

International Patent Class (Additional): A61M-015/00; A61M-016/16

14/26, TI/4 (Item 4 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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013952355

WPI Acc No: 2001-436569/200147

Steam type intake device has steam channel with heat conductive layer formed on its inner wall surface for discharging steam generated in boiler tank from vapor nozzle

14/26, TI/5 (Item 5 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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013021984

WPI Acc No: 2000-193835/200017

Preventing condensation forming inside an ozone generator tube, by using coolant water to cool the outside of the tube

14/26, TI/7 (Item 7 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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011535621

WPI Acc No: 1997-512102/199747

Room humidifier using germicidal UV anti-contamination lamp - has water reservoir, irradiated externally by UV light and with separate heater, and reservoir can then be removed with water it contains

14/34/1 (Item 1 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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016408017 **Image available**

WPI Acc No: 2004-565929/200455

Gas enrichment apparatus for air conditioner in vehicle, has hydrophilic film coated at inner face of blast pipe connected between pressure reduction pump and discharge opening

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU); MATSUSHITA DENKI SANGYO KK (MATU)

Number of Countries: 003 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2004215899	A	20040805	JP 20037165	A	20030115	200455 B
KR 2004066026	A	20040723	KR 20042697	A	20040114	200474
CN 1517620	A	20040804	CN 2004809	A	20040115	200475

Priority Applications (No Type Date): JP 20037165 A 20030115

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 2004215899	A		7	A61M-016/10	
KR 2004066026	A			F24F-003/16	
CN 1517620	A			F24F-003/16	

Abstract (Basic): JP 2004215899 A

NOVELTY - A hydrophilic film (50) is coated at the inner face of a blast pipe (40) which is connected between a pressure reduction pump

(32) and a discharge opening (33).

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for air conditioner.

USE - For air conditioner (claimed) in vehicle, air conditioner for habitation space, and also for use as nitrogen enrichment apparatus used in air cleaner, medical oxygen-enrichment apparatus, portable oxygen-enrichment apparatus, oxygen-enrichment apparatus for combustion machines and refrigerator.

ADVANTAGE - Enables ejecting dew **condensation** water easily.
Reduces noise.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic view of the air conditioner equipped with **gas** enrichment apparatus.

outdoor unit (10)

indoor unit (20)

pressure **reduction** pump (32)

discharge opening (33)

blast pipe (40)

hydrophilic film (50)

pp; 7 DwgNo 1/1

Derwent Class: E36; J01; P34; Q74; X22; X27

International Patent Class (Main): **A61M-016/10** ; F24F-003/16

International Patent Class (Additional): B01D-053/22; C01B-013/02;

F24F-001/00; F24F-013/22

14/34/2 (Item 2 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015493703 ****Image available****

WPI Acc No: 2003-555850/200352

Thin-walled permeable membrane tubing manufacturing method for drying and humidifying breathing gas supplied to patient, involves bathing thin-walled tube in methanol to swell flat band of tube into tubular shape

Patent Assignee: ANHORN E M (ANHO-I); DUBOIS C E (DUBO-I); LEIGHTY D A (LEIG-I); SMITH T P (SMIT-I); PERMA PURE INC (PERM-N)

Inventor: ANHORN E M; DUBOIS C E; LEIGHTY D A; SMITH T P

Number of Countries: 026 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030070680	A1	20030417	US 2001978131	A	20011016	200352 B
WO 200332805	A2	20030424	WO 2002US30905	A	20020927	200352
US 6779522	B2	20040824	US 2001978131	A	20011016	200457

Priority Applications (No Type Date): US 2001978131 A 20011016

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
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US 20030070680	A1		6 A61M-015/00	
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WO 200332805	A2 E		A61B-000/00	
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Designated States (National): CA JP

Designated States (Regional): AT BE BG CH CY CZ DE DK EE ES FI FR GB GR

IE IT LU MC NL PT SE SK TR

US 6779522	B2		A61M-015/00	
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Abstract (Basic): US 20030070680 A1

NOVELTY - The water permeable **material** is forced through concentric extruding heads of a blown film extruder, through which air is blown to create a thin walled **tube** (5) in the form of a flat band. The thin-walled **tube** is converted to the hydrogen ion form, dried and

bathed in methanol to swell the flat band into a tubular shape.

DETAILED DESCRIPTION - AN INDEPENDENT CLAIM is also included for dryer or humidifier.

USE - For manufacturing thin-walled permeable membrane tubing such as **NAFION tube** used in drier/humidifier (claimed) used to dry or humidify **breathing gases** supplied to patient.

ADVANTAGE - As the **tube** is thin-walled and is of non-self supporting nature, the tubing can be folded easily, thus the **tube** can be fed to the outer protective mesh easily.

DESCRIPTION OF DRAWING(S) - The figure shows a cross-sectional view of the thin-walled **Nafion** tubing.

thin-walled **tube** (5)

pp; 6 DwgNo 2/2

Derwent Class: B07; P34

International Patent Class (Main): A61B-000/00; **A61M-015/00**

14/34/3 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015442517 **Image available**

WPI Acc No: 2003-504659/200347

Humidification system for mechanical ventilator used for patient, has patient expiratory gas tube attached to expiratory gas inlet of shroud such that expiratory gas from patient flows into shroud through expiratory gas inlet

Patent Assignee: KIMBERLY-CLARK WORLDWIDE INC (KIMB); HOOSER T V (HOOS-I); TEUSCHER L J (TEUS-I)

Inventor: TEUSCHER O L; VAN HOOSER T; TEUSCHER J L; HOOSER T V; TEUSCHER L J

Number of Countries: 100 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030111077	A1	20030619	US 200123087	A	20011217	200347 B
WO 200351441	A1	20030626	WO 2002US17660	A	20020604	200352
AU 2002345572	A1	20030630	AU 2002345572	A	20020604	200420
MX 2004005853	A1	20041101	WO 2002US17660	A	20020604	200558
			MX 20045853	A	20040616	

Priority Applications (No Type Date): US 200123087 A 20011217

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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US 20030111077	A1		5	A61M-015/00	
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WO 200351441	A1 E			A61M-016/00	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

AU 2002345572	A1		A61M-016/00	Based on patent WO 200351441
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MX 2004005853	A1		A61M-016/00	Based on patent WO 200351441
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Abstract (Basic): US 20030111077 A1

NOVELTY - A shroud (28), arranged about a portion of a **humidification** mechanism (18), includes an **expiratory gas inlet** (26) and an **expiratory gas outlet** (30). A patient **expiratory gas tube** (24) is attached to the **expiratory gas inlet** such that **expiratory gas** from a patient **flows** into the shroud through the **expiratory gas inlet** and

exits the shroud through the **expiratory gas** outlet.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a shroud.

USE - For humidifying **gases** within a mechanical ventilator used for a patient.

ADVANTAGE - **Reduces condensation** within tubing, and ensures effective **humidification** of **gases** within ventilating system.

DESCRIPTION OF DRAWING(S) - The figure shows the schematic representation of inspiratory air providing system.

Humidification mechanism (18)

Patient **expiratory gas tube** (24)

Expiratory gas inlet (26)

Shroud (28)

Expiratory gas outlet (30)

pp; 5 DwgNo 1/1

Derwent Class: P34

International Patent Class (Main): **A61M-015/00 ; A61M-016/00**

International Patent Class (Additional): **A61M-016/08 ; A61M-016/088 ;**

A61M-016/16 ; A61M-016/166

14/34/6 (Item 6 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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011821884 **Image available**

WPI Acc No: 1998-238794/199821

Insulated conditioned respiratory air transport tube - has corrugated tube located within cylindrical casing for reducing condensation

Patent Assignee: SMITH C A (SMIT-I)

Inventor: SMITH C A

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5735266	A	19980407	US 86910625	A	19860923	199821 B
			US 8719248	A	19870226	
			US 88275940	A	19881125	
			US 90593555	A	19901009	
			US 92900995	A	19920619	
			US 95367733	A	19950103	
			US 95578439	A	19951226	

Priority Applications (No Type Date): US 95578439 A 19951226; US 86910625 A 19860923; US 8719248 A 19870226; US 88275940 A 19881125; US 90593555 A 19901009; US 92900995 A 19920619; US 95367733 A 19950103

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5735266	A		11	A61M-016/00	CIP of application US 86910625
					CIP of application US 8719248
					CIP of application US 88275940
					CIP of application US 90593555
					CIP of application US 92900995
					CIP of application US 95367733
					CIP of patent US 5377670

Abstract (Basic): US 5735266 A

The **tube** (1) comprises an air impervious corrugated **tube** (2) for carrying conditioned **gases** and an outer casing (3) for insulating the corrugated **tube**. The corrugated **tube** is located within the casing and

has an outer diameter less than the internal diameter of the casing. The casing is greater in length than corrugated **tube** and is sealed at its ends to the ends of the corrugated **tube**.

The casing is in a slightly longitudinally compressed state relative to the corrugated **tube**, defining an insulating dead air space between the corrugated **tube** and the casing. The ratio of linear volumes of the casing and the corrugated **tube** are in the range of up to 10.0 to 1.0. The casing is of smooth sidewall construction and of a thickness which is equal to or less than the thickness of the corrugated **tube**.

USE - For use in a patient temperature conditioning system, eg for maintaining a prescribed temperature of a patient during an anaesthesia/surgical procedure or thereafter.

ADVANTAGE - The device stabilises the thermal gradient to **reduce** heat losses between the conditioned air and the surrounding atmosphere.

Dwg.1/7

Derwent Class: P34; P35; Q74

International Patent Class (Main): **A61M-016/00**

International Patent Class (Additional): A62B-007/00; A62B-009/06;
F24J-003/00

14/34/8 (Item 8 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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011226824 **Image available**

WPI Acc No: 1997-204727/199719

Respirator machine humidifier with hollow fibre membrane - permeable to water vapour but not surrounding liquid water and increases relative humidity of air for respiration without contamination

Patent Assignee: DRAEGERWERK AG (DRAG)

Inventor: KOCH J

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 19621541	C1	19970410	DE 1021541	A	19960529	199719 B
US 6367472	B1	20020409	US 97796513	A	19970206	200227

Priority Applications (No Type Date): DE 1021541 A 19960529

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 19621541	C1		5	A61M-016/16	
US 6367472	B1			A61M-015/00	

Abstract (Basic): DE 19621541 C

This respirator machine humidifier has an outer casing, water supply, respiration **gas** supply and offtake line. **Humidification** is carried out by a bundle of **hydrophobic hollow fibres, which are permeable to water vapour, but not to liquid water**. The **gas** supply and off take are connected by the interior of the hollow fibre strands. In the novel unit, there are means of electrical heating around the hollow fibres (7) and along the length of their outer circumferential surfaces.

The hollow fibres are PTFE, polyurethane, polysulphone or porous glass sinter treated hydrophobically by a silicone.

USE - A humidifier with heater, for a respirator machine.

ADVANTAGE - Humidifiers raise the moisture level and if appropriate, the temperature of air for respiration, to suitable physiological levels. The humidifier has formerly been separate from

the respiration equipment, necessitating complicated interconnection and inconvenient handling. This unit integrates the **humidification**, **reducing** overall cost and improving convenience and compactness. The unit is easily constructed and relatively maintenance free. It can be placed directly in the respirator system inspiration line. The closed water system prevents contamination of the air line, and uses a bottle of sterile water. Though compact, the fibre system humidifies to a near constant level of 90-100% RH. Heating supplies a second purpose, it may be turned up briefly, for sterilisation purposes.

Dwg.1/1

Derwent Class: A88; J01; P34

International Patent Class (Main): **A61M-015/00 ; A61M-016/16**

International Patent Class (Additional): B01D-065/00

14/34/9 (Item 9 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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010067484 **Image available**

WPI Acc No: 1994-335197/199442

Heater for breathing gas circuit component with heat-moisture exchanger - has housing with separate heater retained by coupling which engages flange on heater, latter comprising helical wire heating element and layer of insulating material

Patent Assignee: SMITHS IND PLC (SMIS)

Inventor: TURNER M; TURNER M W

Number of Countries: 020 Number of Patents: 009

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
GB 2277689	A	19941109	GB 946963	A	19940408	199442 B
WO 9426339	A1	19941124	WO 94GB722	A	19940405	199501
AU 9463843	A	19941212	AU 9463843	A	19940405	199522
EP 696925	A1	19960221	EP 94911286	A	19940405	199612
			WO 94GB722	A	19940405	
AU 672690	B	19961010	AU 9463843	A	19940405	199648
JP 8509883	W	19961022	JP 94525095	A	19940405	199705
			WO 94GB722	A	19940405	
GB 2277689	B	19970416	GB 946963	A	19940408	199719
EP 696925	B1	19980520	EP 94911286	A	19940405	199824
			WO 94GB722	A	19940405	
DE 69410460	E	19980625	DE 610460	A	19940405	199831
			EP 94911286	A	19940405	
			WO 94GB722	A	19940405	

Priority Applications (No Type Date): GB 939294 A 19930506

Cited Patents: EP 201985; GB 2233904; LU 64737; US 4121583; WO 9119527; WO 9207601

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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GB 2277689	A		11	A61M-016/00	
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WO 9426339	A1		9	A61M-016/10	
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Designated States (National): AU CA JP US

Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

AU 9463843	A			A61M-016/16	Based on patent WO 9426339
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EP 696925	A1 E	11		A61M-016/10	Based on patent WO 9426339
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Designated States (Regional): DE FR GB

AU 672690 B A61M-016/16 Previous Publ. patent AU 9463843
 Based on patent WO 9426339
JP 8509883 W 11 A61M-016/10 Based on patent WO 9426339
EP 696925 B1 E A61M-016/10 Based on patent WO 9426339
 Designated States (Regional): DE FR
DE 69410460 E A61M-016/10 Based on patent EP 696925
 Based on patent WO 9426339
GB 2277689 B A61M-016/00
Abstract (Basic): GB 2277689 A

The heater for a device through which **gas flows in a breathing gas circuit**, comprises an electrical resistance heating element having a surface which is in thermal contact with a wall of the device such that its internal surface can be heated to **reduce condensation** within the device. The heater is separable from the device and contacts the external surface of the wall of the device.

The device and the heater are of frusto-conical shape, and the heater has an inwardly-extending flange at one end with a central aperture. The device has a male coupling that projects through the aperture, and the heater is retained on the device by a cooperating female coupling.

USE/ADVANTAGE - E.g. for medical and surgical devices. **Reduced condensation** build-up for **reduced** patient risk from bacterial accumulation.

Dwg.1/2

Abstract (Equivalent): GB 2277689 B

An HME or filter device through which **gas flows in a breathing gas circuit** and including a heater having an electrical resistance heating element, wherein the heater is separable from the device and has a surface in thermal contact with the external surface of a wall of the device enclosing an HME or filter element such that the internal surface of the wall of the device can be heated to **reduce condensation** within the device.

Dwg.1

Derwent Class: P34; S05; X25

International Patent Class (Main): **A61M-016/00 ; A61M-016/10 ; A61M-016/16**

International Patent Class (Additional): **A61M-016/16**

14/34/10 (Item 10 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.

009722088 **Image available**

WPI Acc No: 1994-001938/199401

Tubing for use with humidifier - has outer flexible tube bonded to inner corrugated tube in manner trapping air, to act as insulation, within corrugations

Patent Assignee: SMITHS IND PLC (SMIS)

Inventor: TURNER M W

Number of Countries: 006 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
GB 2268786	A	19940119	GB 9312375	A	19930616	199401 B
EP 579384	A1	19940119	EP 93304663	A	19930615	199403
AU 9341402	A	19940120	AU 9341402	A	19930622	199409
CA 2099207	A	19940117	CA 2099207	A	19930625	199414

Priority Applications (No Type Date): GB 9215154 A 19920716
Cited Patents: FR 2505658; GB 704819; US 4051847; US 4336798; US 5143060

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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GB 2268786	A		11	F16L-011/11	
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EP 579384	A1	E	5	A61M-016/08	
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Designated States (Regional): DE FR IT

AU 9341402	A			A61M-016/08	
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CA 2099207	A			A61M-039/00	
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Abstract (Basic): GB 2268786 A

The tubing has an inner corrugated **tube** (32) and an outer flexible **tube** (34) extending along its length. The outer **tube** (34) is bonded to the corrugated **tube** where it contacts the corrugations (33) so that air is trapped between the corrugations. This insulates the tubing and **reduces condensation**.

The bonding between the **tubes** may be achieved by a solvent or adhesive or by heat treating the **tubes**. The corrugation may be by a helical reinforcement element wound around the outside of the **tube**. The inner **tube** may have an external layer of an insulating foam held in place by its resilience after being radially stretched.

USE - A tubing for connecting a humidifier to a tracheal **tube** or face mask.

Dwg.1,2/4

Derwent Class: P34; Q67

International Patent Class (Main): **A61M-016/08** ; A61M-039/00; F16L-011/11

International Patent Class (Additional): **A61M-015/00** ; **A61M-016/16** ;

F16L-011/12; F16L-011/20

14/34/11 (Item 11 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.

009187703 **Image available**

WPI Acc No: 1992-315142/199238

Insulated carbon dioxide absorption system for surgical equipment - includes enclosure adapted to receive granular material for absorption of carbon dioxide from air exhausted patient

Patent Assignee: SMITH C A (SMIT-I)

Inventor: SMITH C A

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5143060	A	19920901	US 89363531	A	19890608	199238 B
			US 90590947	A	19901001	

Priority Applications (No Type Date): US 90590947 A 19901001; US 89363531 A 19890608

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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US 5143060	A		10	A61M-016/22	CIP of application US 89363531
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Abstract (Basic): US 5143060 A

The system for use with assisted human **breathing** systems includes an enclosure adapted to receive a granular **material** for absorption of carbon dioxide from the air exhausted from a patient using the system. An exhaust air inlet is provided to the device, and a return air outlet is provided from the device to the user. The exhaust air inlet and the return air outlet communicate through the granular **material** contained

within the apparatus. The enclosure which contains the granular **material** is insulated so that heat generated by the absorption of carbon dioxide onto the granular **material** is retained by the return air stream emitted from the enclosure.

Insulated tubing is connected between the device and the patient so as to **decrease** heat loss and **condensation** of moisture from the circulating air. The enclosure can isolate **breathing** gases from other parts of the system to prevent contaminated patient **gases** from contacting mechanical parts of an anaesthesia machine associated with the **breathing** system. The prevents contamination of the patient by **gases** that have been in contact with internal mechanical parts of the anaesthesia machine which have been in contact with **gas** breathed by prior patients.

USE - With recirculation type **breathing** systems for conditioning air to be supplied to a patient. E.g. in surgical operating rooms.

Dwg.2/9

Derwent Class: P34

International Patent Class (Main): **A61M-016/22**

14/34/12 (Item 12 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.

008666752 **Image available**

WPI Acc No: 1991-170779/199123

Disposable carbon dioxide absorber for rebreather - is flexible bag made of film material and contg. granules

Patent Assignee: ENVIRONMENTAL SUPPORT SYSTEMS (ENVI-N); ENVIRONMENTAL SUPPO (ENVI-N)

Inventor: LAMBERT B B

Number of Countries: 017 Number of Patents: 008

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5016628	A	19910521	US 90512389	A	19900423	199123 B
EP 453926	A	19911030	EP 91106038	A	19910416	199144
AU 9175138	A	19911024				199150
CA 2040633	A	19911024				199203
EP 453926	A3	19921104	EP 91106038	A	19910416	199342
EP 453926	B1	19960710	EP 91106038	A	19910416	199632
DE 69120720	E	19960814	DE 620720	A	19910416	199638
			EP 91106038	A	19910416	
CA 2040633	C	20000613	CA 2040633	A	19910417	200042

Priority Applications (No Type Date): US 90512389 A 19900423

Cited Patents: EP 123782; FR 1009188; US 4977634; WO 9000438

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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EP 453926	A				
Designated States (Regional): AT BE CH DE ES FR GB GR IT LI LU NL SE					

EP 453926	B1	E	6	A62B-019/00	
Designated States (Regional): AT BE CH DE DK ES FR GB GR IT LI LU NL SE					

DE 69120720	E			A62B-019/00	Based on patent EP 453926
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CA 2040633	C	E		B01D-053/04	
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Abstract (Basic): US 5016628 A

Rebreather appts. has a disposable CO2 absorber comprising a flexible bag-shaped packet made of film **material** contg. granular CO2 remover.

Pref. an inlet with a check valve and a perforated outlet e.g. a disc or **tube** are provided. Pref. the bag is transparent and made of polyethylene.

ADVANTAGE - The flexible bag allows more surface area to be utilised, **reduces condensation** and allows the granules to move providing a more uniform **flow** path. The bag is less expensive to produce than rigid containers. (5pp Dwg.No.1/2)

Abstract (Equivalent): EP 453926 B

Apparatus for **rebreathing gas** characterised by granular means (5) for absorbing CO₂; and a flexible container (4) for containing the granular means (5), the container having an intake port (2) for the **gas** to enter the container and an exhaust port (6,7) for the **gas** to exit the container after the **gas** has **flowed** through the granular means.

Dwg.1/2

Derwent Class: A92; K02; P34; P35

International Patent Class (Main): A62B-019/00; B01D-053/04

International Patent Class (Additional): **A61M-016/22** ; A62B-023/02;
B01D-053/34

14/7/13 (Item 1 from file: 347)

DIALOG(R) File 347:JAPIO

(c) 2006 JPO & JAPIO. All rts. reserv.

08370324 **Image available**

HUMIDIFICATION SYSTEM

PUB. NO.: 2005-118584 [JP 2005118584 A]

PUBLISHED: May 12, 2005 (20050512)

INVENTOR(s): GRADON LEWIS GEORGE

MCPHEE STEPHEN W

SEAKINS PAUL JOHN

LEONARD PETER JOHN

APPLICANT(s): FISHER & PAYKEL APPLIANCES LTD

APPL. NO.: 2004-314203 [JP 2004314203]

Division of 2002-129735 [JP 2002129735]

FILED: October 28, 2004 (20041028)

PRIORITY: 97 328116 [NZ 328116], NZ (New Zealand), June 17, 1997
(19970617)

98 330295 [NZ 33295], NZ (New Zealand), April 27, 1998
(19980427)

ABSTRACT

PROBLEM TO BE SOLVED: To provide a **respiratory humidification** system capable of detecting and controlling humidity.

SOLUTION: A **flow** rate probe 19 used in a **humidification** system is disclosed. The **flow** rate probe is constituted to be arranged in a humidified **gas flow** provided for a patient in a hospital. The **flow** rate probe is designed to provide both temperature and a **flow** rate of a **gas flow** by incorporating two sensors, to enable accurate readings by **reducing** the occurrence of **condensation** on the sensors by a shape and alignment of this **flow** rate probe. A number of possible applications are disclosed wherein a **flow** rate sensor 35 is included in a humidity control system. This humidity control system provides the patient with a desired humidity level, and simplifies required user input. The **flow** rate sensor provides a controller with **flow** rate information used to determine certain possibly dangerous conditions (such as incorrect **flow** sensor placement, a **breathing** device disconnected, no water in a **humidification** chamber, or humidity out of required limits).

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14/7/16 (Item 4 from file: 347)

DIALOG(R) File 347:JAPIO

(c) 2006 JPO & JAPIO. All rts. reserv.

07751450 **Image available**

RESPIRATOR SYSTEM FOR HEAT RADIATION FROM CARBON DIOXIDE ABSORBENT AND CANISTER USED FOR THE SYSTEM

PUB. NO.: 2003-245355 [JP 2003245355 A]

PUBLISHED: September 02, 2003 (20030902)

INVENTOR(s): HIRABAYASHI TAKESHI

APPLICANT(s): HIRABAYASHI TAKESHI

APPL. NO.: 2002-047109 [JP 200247109]

FILED: February 22, 2002 (20020222)

ABSTRACT

PROBLEM TO BE SOLVED: To perform low flow anesthesia by **reducing condensation** formed in an anesthetic **circuit** through suppressing the rise in temperature of a carbon dioxide absorbent and through **reducing evaporation** of moisture from the carbon dioxide absorbent, without increasing a decomposed compound.

SOLUTION: Low flow anesthesia, where the total supply of fresh **gas** containing oxygen and a volatile anesthetic in a closed circulation respirator system is less than or equal to 2 liter/min, is performed by radiating heat efficiently from the carbon dioxide absorbent which produces heat when absorbing carbon dioxide, by **reducing condensation** formed in the anesthetic **circuit** through suppressing the rise in temperature of the carbon dioxide absorbent to the minimum and through **reducing evaporation** of moisture from the carbon dioxide absorbent, and without increasing the decomposed compound produced by a reaction between the volatile anesthetic and the carbon dioxide absorbent.

COPYRIGHT: (C)2003,JPO

16/26, TI/1 (Item 1 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.

017552953

WPI Acc No: 2006-064205/200607

Intra-convertible thermal vapor extraction and delivery system for aromatic and active substance containing vapors of plant materials and/or fluid, has nozzle base with greater outer diameter than tapered nozzle end

16/26, TI/2 (Item 2 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.

017441932

WPI Acc No: 2005-765611/200578

Aerosol generator comprises flow passage, constriction at the flow passage outlet end, and heater adapted to heat liquid to produce vapor which is expelled from the outlet end into ambient air

16/26, TI/5 (Item 5 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.

015934794

WPI Acc No: 2004-092635/200410

Apparatus to vaporize a liquid narcotic, to be mixed with a carrier gas, has a dosing valve in the upper chamber section to deliver a spray into the carrier gas flow together with a vapor cooler

16/26, TI/6 (Item 6 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.
015535495

WPI Acc No: 2003-597645/200356

Vapor driven aerosol generator for treating respiratory ailments, has reservoir that supplies fluid to heater, which vaporizes fluid in passage between bonded layers of laminate

16/26, TI/7 (Item 7 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.
014472645

WPI Acc No: 2002-293348/200234

Connector line between bypass line and evaporation chamber for liquid anesthesia agent, incorporates component made of material adsorbing vapor of anesthesia agent

16/26, TI/8 (Item 8 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.
014373482

WPI Acc No: 2002-194185/200225

Apparatus for producing liquid - vapor carrier gas-anesthetic mixture

16/26, TI/9 (Item 9 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.
014347105

WPI Acc No: 2002-167808/200222

Anion generator has cylinder with water separation arrangement at lower portion, and vapor - liquid separation arrangement at upper portion

16/26, TI/10 (Item 10 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.
013948522

WPI Acc No: 2001-432736/200146

Inhaler for dispensing metered doses of inhalant vapor, has heating mechanism to heat liquid propellant in reservoir and actuator for opening apparatus and releasing propellant for inhalation

16/26, TI/13 (Item 13 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.
011721781

WPI Acc No: 1998-138691/199813

Negative ion generator - includes air passage way to form airflow path through which air flows to connection part of water fission part and vapour liquid separation part

16/26, TI/14 (Item 14 from file: 350)

DIALOG(R)File 350:Derwent WPIX
(c) 2006 Thomson Derwent. All rts. reserv.
011356787

WPI Acc No: 1997-334694/199731

Filling system for anaesthetic vaporiser - ensures that vapour space above liquid in anaesthetic supply container is connected to vaporiser reservoir before admitting liquid to reservoir

16/26,TI/15 (Item 15 from file: 350)

DIALOG(R)File 350:Derwent WPIX
(c) 2006 Thomson Derwent. All rts. reserv.
011356784

WPI Acc No: 1997-334691/199731

Method for filling anaesthetic vaporiser - has filling valve which, when closed ensures that liquid supply line from anaesthetic container to vaporiser filling valve is connected to vapour return line to container

16/26,TI/16 (Item 16 from file: 350)

DIALOG(R)File 350:Derwent WPIX
(c) 2006 Thomson Derwent. All rts. reserv.
011304546

WPI Acc No: 1997-282451/199726

Method for producing temperature treated aerosols for inhalation treatment and device for undertaking method - has containers of treatment fluid with individual atomiser nozzles in them producing vapour with vapour from separate containers fed via common outlet to heater collar and patient delivery system

16/26,TI/17 (Item 17 from file: 350)

DIALOG(R)File 350:Derwent WPIX
(c) 2006 Thomson Derwent. All rts. reserv.
010626315

WPI Acc No: 1996-123268/199613

Medicinal vapour inhalation device - incorporates water heater, vapour nozzle and inhalation liquid nozzle

16/26,TI/19 (Item 19 from file: 350)

DIALOG(R)File 350:Derwent WPIX
(c) 2006 Thomson Derwent. All rts. reserv.
007909690

WPI Acc No: 1989-174802/198924

Identification method for gases used in medicine - involves adding liquid, vapour or gas to give readily identifiable odour

16/26,TI/20 (Item 20 from file: 350)

DIALOG(R)File 350:Derwent WPIX
(c) 2006 Thomson Derwent. All rts. reserv.
007303882

WPI Acc No: 1987-300889/198743

Evaporator and vapour doser - with liquid injection pump slaved to gas flow meter

16/26,TI/21 (Item 21 from file: 350)

DIALOG(R)File 350:Derwent WPIX
(c) 2006 Thomson Derwent. All rts. reserv.
004801225

WPI Acc No: 1986-304566/198646

Respiratory gas monitor for babies - has cooler comprising thermoelectric cooling block and insulating block to remove water vapour

16/26, TI/22 (Item 22 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.

004357792

WPI Acc No: 1985-184670/198531

High-frequency respiration appts. - has temp. detector at union between respiratory gas and vapour pipes connected to alarm

16/26, TI/23 (Item 23 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.

004086482

WPI Acc No: 1984-232023/198438

Inhaler with water vapour producer - has nozzle in fluid container through which steam flows to impact plate

16/34/3 (Item 3 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.

016550034 **Image available**

WPI Acc No: 2004-708775/200469

Fluid collection device for collecting condensed vapor and moisture from a gas directing conduit, comprises a duct having a proximal end for communication with the conduit, and a distal end in communication with a lid

Patent Assignee: KIMBERLY-CLARK WORLDWIDE INC (KIMB)

Inventor: ROUNS C G; VAN HOOSER D T

Number of Countries: 109 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20040193101	A1	20040930	US 2003397010	A	20030325	200469 B
WO 200493954	A1	20041104	WO 2004US4721	A	20040217	200472
EP 1606001	A1	20051221	EP 2004711922	A	20040217	200601
			WO 2004US4721	A	20040217	

Priority Applications (No Type Date): US 2003397010 A 20030325

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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US 20040193101	A1		18	A61M-001/00	
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WO 200493954	A1	E		A61M-016/08	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ
CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID
IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ
NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ
UA UG US UZ VC VN YU ZA ZM ZW

Designated States (Regional): AT BE BG BW CH CY CZ DE DK EA EE ES FI FR
GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR
TZ UG ZM ZW

EP 1606001	A1	E		A61M-016/08	Based on patent WO 200493954
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Designated States (Regional): AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

Abstract (Basic): US 20040193101 A1

NOVELTY - A device for collecting condensed vapor and moisture from

a **gas directing conduit** (112) having an opening, comprises:

- (i) a lid (120);
- (ii) a reservoir (140) capable of forming a seal with the lid, and for receiving **vapor** and moisture; and
- (iii) a duct (114) having proximal and distal ends, the distal end (121) being in communication with the lid and the proximal end adapted for communication with the **conduit**.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of draining **fluid** from a **gas directing tube** or draining a heated wire **circuit**, comprising:

- (a) providing a **fluid** collection device;
- (b) creating an opening in the **gas directing tube**; and
- (c) inserting portion(s) of the **fluid** collection device into the opening in the **gas directing tube**, so that **fluids** within the **gas directing tube** may **flow** into the reservoir.

USE - For collecting condensed **vapor** and moisture from a **gas directing conduit** (claimed).

ADVANTAGE - The device provides for the condensate removal along a **gas directing conduit** or system at points other than between **gas directing conduit** connections or at terminal points of the **gas directing conduit**. Periodic aspiration of accumulated **liquid** from the apparatus without interruption of **gas flow** through the **gas directing conduit** may also be facilitated.

DESCRIPTION OF DRAWING(S) - The figure is a side view of the **fluid** collection device in contact with a **gas directing tube**, which is shown in cross-section.

Gas directing conduit (112)

Duct (114)

Lid (120)

Distal end (121)

Reservoir (140)

pp; 18 DwgNo 3/9

Technology Focus:

TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Components: The duct is capable of sealingly engaging the opening in the **conduit**. The duct in communication with the lid is integrally formed to the lid. The duct is sized to be capable of receiving a piercing mechanism. The device further comprises a retention mechanism capable of retaining the duct in position relative to the **conduit**. The retention mechanism encompasses a portion of the **conduit** to maintain the position of the device relative to the **conduit**. It is at least inside the **conduit** when the device is properly positioned. The duct has opening(s), which enable **fluid** to **flow** from the **conduit** into the reservoir.

Derwent Class: B07; P34; S05

International Patent Class (Main): A61M-001/00; **A61M-016/08**

16/34/4 (Item 4 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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016540082 **Image available**

WPI Acc No: 2004-698802/200468

Assembly for collecting condensed vapor and moisture from a gas directing tube, comprises a reservoir in fluid communication with a piercing member having a fluid path, and a retention mechanism

Patent Assignee: KIMBERLY-CLARK WORLDWIDE INC (KIMB)

Inventor: ROUNS C G; VAN HOOSER D T

Number of Countries: 109 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20040193100	A1	20040930	US 2003396171	A	20030325	200468 B
WO 200493955	A1	20041104	WO 2004US4722	A	20040217	200472
EP 1606000	A1	20051221	EP 2004711921	A	20040217	200601
			WO 2004US4722	A	20040217	

Priority Applications (No Type Date): US 2003396171 A 20030325

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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US 20040193100	A1		18	A61M-001/00	
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WO 200493955	A1 E			A61M-016/08	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ
CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID
IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ
NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ
UA UG US UZ VC VN YU ZA ZM ZW

Designated States (Regional): AT BE BG BW CH CY CZ DE DK EA EE ES FI FR
GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR
TZ UG ZM ZW

EP 1606000	A1 E			A61M-016/08	Based on patent WO 200493955
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Designated States (Regional): AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

Abstract (Basic): US 20040193100 A1

NOVELTY - A draining assembly (100) comprises a collection reservoir (104) in **fluid** communication with a piercing member (102) having a **fluid flow** path (108) through a portion of it and a retention mechanism (106) for maintaining the position of the reservoir relative to a **gas directing tube** (112).

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:

(1) draining a ventilating system using the assembly comprising inserting the piercing member into the **gas directing tube** to create an opening in the **gas directing tube**, and securing the assembly to the **tube** so that **liquids** within the **tube** may **flow** into the collection reservoir; and

(2) draining a heated wire **circuit** using the assembly comprising inserting the piercing member into the **circuit** to create an opening in the **circuit**, and securing the assembly to the **circuit** so that **fluids** within the **circuit** may **flow** into the reservoir.

USE - For collecting condensed **vapor** and moisture from a **gas directing tube** (claimed).

ADVANTAGE - The drain assembly can be installed before or after **fluids** begin to **flow** through the **conduit**. The assembly need not to inserted between two **conduits** or break (i.e. separation) of one **conduit**. The assembly can be inserted into pre-existing **conduit** and provides the ability to install the drain assembly during use of **conduit** with minimal or no interruption of the **fluid flow** through the **conduit**. The assembly **reduces** leaks in the system.

DESCRIPTION OF DRAWING(S) - The figure shows a side of draining assembly in contact with **gas directing tube**.

draining assembly (100)
piercing member (102)
collection reservoir (104)
retention mechanism (106)

fluid flow path (108)
gas directing tube (112)
pp; 18 DwgNo 3/9

Technology Focus:

TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred
Assembly: The piercing member comprises a **conduit**, where the **conduit** is capable of conducting **fluid** to the collection reservoir. The piercing member forms a portion of the **conduit**. The collection reservoir comprises a lid member having an opening, the lid member being in communication with the piercing member to allow **fluid** to **flow** through the opening into the collection reservoir. The piercing member or **conduit** has several openings to allow **fluid** to **flow** through a portion of it, where one of the openings allows for **fluid** in the **gas directing tube** to enter the assembly and one of the openings allows for the **fluid** to pass into the reservoir. The reservoir has an access port to allow for the aspiration of **fluid** from the reservoir. The access port is a normally closed opening in the reservoir capable of receiving a probe through which suction is selectively communicated to remove **fluid** from the reservoir. An evacuation **tube** is interposed between the normally closed opening of the reservoir and the interior of the reservoir. The retention mechanism encompasses a portion of the **gas directing tube** to maintain the position of the assembly relative to the **tube**. The retention mechanism comprises a clamp. The assembly comprises a sealing member to **reduce fluid** leaks from the **tube** or the assembly. The sealing member is disposed about a portion of the retention mechanism.

Preferred Method: The method of (1) further comprises aspirating **fluid** from the collection reservoir. The aspirating includes periodically aspirating accumulated **fluid** from the reservoir. The aspirating is performed by a probe. The aspirating includes a suction source. In (1) and (2), inserting the piercing member occurs at a low point along the **tube**.

Derwent Class: B07; P34

International Patent Class (Main): A61M-001/00; **A61M-016/08**

16/34/11 (Item 11 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.

013402292 **Image available**

WPI Acc No: 2000-574230/200054

Oxygen enricher for use in medical treatment, comprises liquid - vapor separator provided with spiral flow path for oscillating compressed air and electromagnetic valve for expanding the air by instant switching

Patent Assignee: IKEDA S (IKED-I)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2000178009	A	20000627	JP 98361554	A	19981218	200054 B

Priority Applications (No Type Date): JP 98361554 A 19981218

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 2000178009	A		7	C01B-013/02	

Abstract (Basic): JP 2000178009 A

NOVELTY - Oxygen enricher comprises **liquid-vapor separator (113)** for separating water in compressed air and draining unit for draining the separated water. Separator (113) is provided with a spiral **flow**

path and compressed air passing through the **flow** path is subjected to oscillation. The draining unit comprises an electromagnetic valve (115) which enables expansion of compressed air by instant switching.

DETAILED DESCRIPTION - Oxygen enricher (110) comprises compressed air supply unit (111) for supplying compressed air, condenser (112) for condensing compressed air, **liquid-vapor** separator for separating water in compressed air, draining unit for draining separated water, switching valve (117) for switching **flow** path of compressed air selectively, concentrated oxygen forming unit (118) for separating nitrogen and oxygen in compressed air and forming concentrated oxygen and controlling unit for adjusting oxygen concentration in the unit (118). **Liquid-vapor** separator is provided with a spiral **flow** path and compressed air passing through the **flow** path is subjected to oscillation. The draining unit comprises an electromagnetic valve. The compressed air expands by instant switching of the valve (115).

USE - For medical treatment such as for treating **respiratory** diseases and for supplying oxygen to the patient during an operation.

ADVANTAGE - Water droplets and impurities are effectively removed from the compressed air, in **liquid-vapor** separator. The rate of **flow** of compressed air is adjusted stably without blocking the switching valve, thereby easily controlling the concentration of oxygen.

DESCRIPTION OF DRAWING(S) - The figure shows block diagram of oxygen enricher.

Oxygen enricher (110)
Compressed air supply unit (111)
Condenser (112)
Liquid-vapor separator (113)
Electromagnetic valve (115)
Switching valve (117)
Concentrated oxygen forming unit (118)
pp; 7 DwgNo 1/7

Technology Focus:

TECHNOLOGY FOCUS - MECHANICAL ENGINEERING - Preferred Process:
Electromagnetic valve is operated before operating switching valve.
Preferred Valve: The switching valve is an orifice valve comprising an orifice plate. The valve is configured along the **flow** path of compressed air.

Derwent Class: E36; P34

International Patent Class (Main): C01B-013/02

International Patent Class (Additional): **A61M-016/10**

16/34/18 (Item 18 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.

008456396 ****Image available****

WPI Acc No: 1990-343396/199046

Respiratory humidifier - in which vapour permeable foam member is provided with tortuous fluid passage provided inside bag partially filled with water

Patent Assignee: **RESPIRATORY SUPPORT (RESP-N)**

Inventor: BERAN A V

Number of Countries: 009 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 397446	A	19901114	EP 90304944	A	19900508	199046 B
GB 2231273	A	19901114	GB 9010290	A	19900508	199046

International Patent Class (Additional): **A61M-016/16** ; B01F-003/04

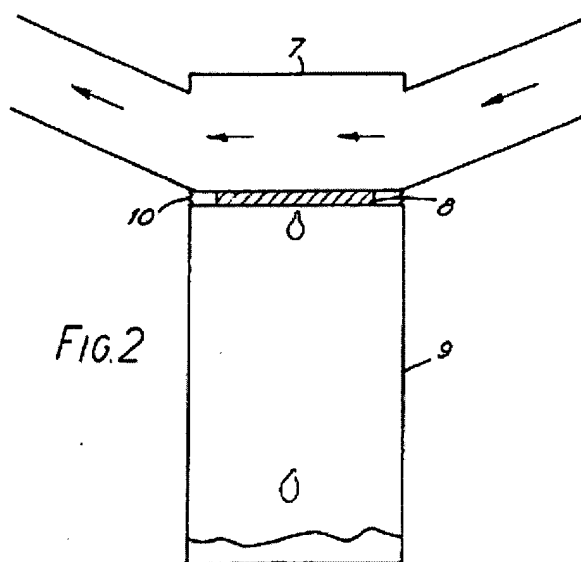
Water trap

Patent number: GB2224957
Publication date: 1990-05-23
Inventor: JESSUP MARK B
Applicant: UNIMED UK LIMITED (GB)
Classification:
- international: **A61M16/08; F16T1/34; A61M16/08; F16T1/00;** (IPC1-7): A61M16/10; F16T1/34
- european: A61M16/08C; F16T1/34
Application number: GB19890025997 19891117
Priority number(s): GB19880027075 19881119

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Abstract of GB2224957

A water trap, in the air line of a respirator for administration of anaesthetics or a mechanical breathing system, comprises a membrane 8 that allows passage of water into container 9 but prevents substantial passage of gas. The membrane may be formed of an absorbent material which forms a barrier to gas when saturated with water, for example, a polytetrafluorethylene based hydrophilic material. Alternatively the membrane may be formed of a material that will allow diffusion of water therethrough for example, a hydrogel supported on plastics netting. Container 9 has a valve or is removable for emptying.






Data supplied from the esp@cenet database - Worldwide

HUMIDIFYING DEVICE

Patent number: JP2193680
Publication date: 1990-07-31
Inventor: PAURU ZAN; IRIJIYA ORETSUKU; CHIYAARUZU
GUREEMU MAAREI
Applicant: FISHER & PAYKEL
Classification:
- international: **A61M16/16; B01F3/02; A61M16/10; A61M16/14;
A61M16/10; B01F3/00; (IPC1-7): A61M16/16; B01F3/02**
- european: **A61M16/16; B01F3/02B**
Application number: JP19890250813 19890928
Priority number(s): NZ19880226392 19880929; NZ19880226784 19881031

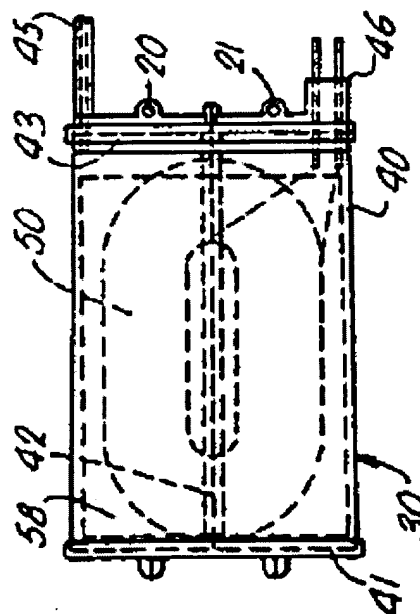
Also published as:

 US5062145 (A1)
 GB2252515 (A)
 GB2223694 (A)
 FR2636845 (A1)
 DE3932766 (A1)

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Abstract of JP2193680

PURPOSE: To provide a patient in hospital with a humidification gas as needed, by forming a porous wall into a water compartment which provides a first path and also consists of a sheet-shaped porous material which is substantially included by a water compartment support means and mechanically reinforcing the porous material of the water compartment in order to resist the pressure on the water compartment support means. **CONSTITUTION:** A water compartment 30 consists of a porous seet material 40 which has sealed marginal parts 41, 42 and 43. The porous material 40 substantially has permeability to water vapor, but substantially impermeability to liquid water, for example it is made of a reinforced PTFE. To form the water compartment 30 consisting of a porous wall, the sheet material 40 is cut into a rectangle and folded, and the marginal parts, in order to form sealed marginal parts 41, 42 and 43, are rigidly anchored each other, for example by injecting a plastic material around the contact marginal parts.



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HEAT AND MOISTURE EXCHANGER COMPRISING HYDROPHILIC NYLON AND METHODS OF USING SAME

Patent number: WO0048682

Publication date: 2000-08-24

Inventor: BERGER RICHARD M (US)

Applicant: AMERICAN FILTRONA CORP (GB); BERGER RICHARD M (US)

Classification:



- international: A61M16/10; A62B9/00; B01D39/16; D01F8/12; D04H1/42; D04H1/56; D04H3/16; A61M16/10; A62B9/00; B01D39/16; D01F8/12; D04H1/42; D04H1/56; D04H3/16; (IPC1-7): A62B18/08

- european: A61M16/10E; A62B9/00A; B01D39/16B4B; D01F8/12; D04H1/42; D04H1/56B; D04H3/16






Application number: WO2000US00909 20000118

Priority number(s): US19990251491 19990217

Also published as:

 EP1161281 (A1)
 US6330883 (B1)

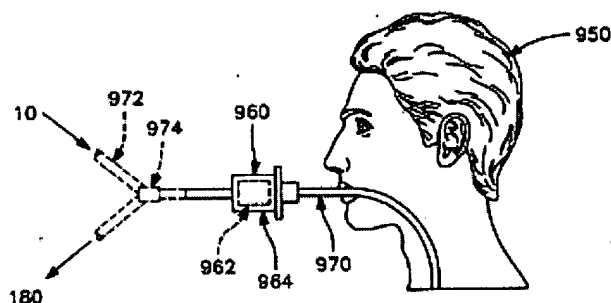
Cited documents:

 US4449992
 US5586997
 US3881482
 US5482031
 US4771770
more >>

[Report a data error here](#)

Abstract of WO0048682

This invention is a heat, and moisture exchanger (960) including a gas permeable element (962) made of a fibrous media which traps the heat, the moisture from a patient's exhalant; which imparts heat, moisture to inspiratory gases as the patient inhales, conserving the patient's pulmonary heat and moisture. The media is made of a hydrophilic nylon polymer. The gas permeable element (962) can be formed entirely of mono-component fibers of the hydrophilic polymer or they may be a bi-component fiber having a sheath of the hydrophilic polymer with a thermoplastic core, e.g. polypropylene. The fibers are held together at their mutual points of contact with a bonding agent, e.g. polyester.








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Heat and Moisture Exchanging Filters

Patent number: CA2098132
Publication date: 1993-12-12
Inventor: LOWE GRAHAM D (GB); MORRIS KEITH S (GB);
PAGE ROGER E (GB); GUTMAN RICHARD G (GB)
Applicant: LOWE GRAHAM D (GB); MORRIS KEITH S (GB);
PAGE ROGER E (GB); GUTMAN RICHARD G (GB)
Classification:
- international: *A61M16/10; B01D39/18; B01D39/20; B01D46/16;
B01D46/52; A61M16/10; B01D39/18; B01D39/20;
B01D46/10; B01D46/52; (IPC1-7): A61M7/10;
B01D39/14; B32B5/14*
- european: A61M16/10E; A61M16/10F1; B01D39/18;
B01D39/20H4D; B01D46/16; B01D46/52
Application number: CA19932098132 19930610
Priority number(s): GB19920012399 19920611

Also published as:

 NL9301022 (A)
 JP6063141 (A)
 GR93100236 (A)
 GB2267661 (A)
 FR2749173 (A1)

more >>

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Abstract not available for CA2098132

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DEVICES FOR INTRODUCING VAPOURS INTO GASES**Patent number:** GB1492459**Publication date:** 1977-11-23**Inventor:****Applicant:** DRAEGERWERK AG**Classification:****- international:** **A61M16/16; A61M16/10; A61M16/14; A61M16/10;**
(IPC1-7): A61M16/00; B01F3/02; B01F5/00**- european:** A61M16/16**Application number:** GB19750027379 19750627**Priority number(s):** DE19742430875 19740627**Also published as:**

US4010748 (A1)

NL7507176 (A)

JP51025394 (A)

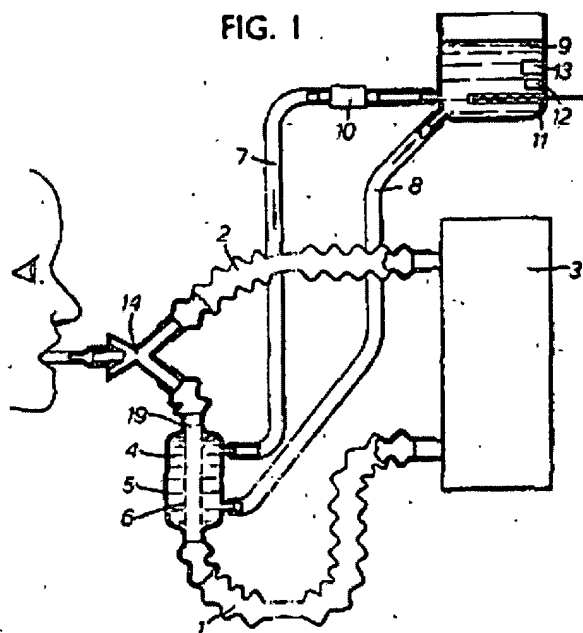
FR2276065 (A1)

DE2430875 (A1)

more >>

[Report a data error here](#)**Abstract of GB1492459**





1492459 Humidifying respiratory gas
DRAGERWERK AG 27 June 1975 [27 June 1974] 27379/75 Heading A5T [Also in Division B1] A humidifier for respiratory apparatus comprises a tube 6 of material pervious to water vapour but impervious to water liquid the tube being surrounded by a container 5 forming a water jacket around the tube 6, the tube 6 providing a passage for inhalation air to the patient. A pump 10 circulates heated water through the container 5 from a reservoir 9. Coupled non-return valves (15, 16) Fig. 3 (not shown) may be disposed in the water supply and return conduits, the valves being closed during inhalation and opened during exhalation due to the response of the water in the circuit alternately to the inhalation and exhalation pressures of the gas in the tube 6. The material forming the tube 6 may be macroporous and hydrophobic or microporous and hydrophilic. The tube may have a star-shaped cross-section. A sheet 19 of the same material as the tube 6 is arranged downstream of the humidifier to prevent water entering the breathing passages in the event of a leak in the tube 6.

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Device for reducing the relative humidity of a flowing gas.

Patent number: EP0673668
Publication date: 1995-09-27
Inventor: PSAROS GEORGIOS (SE); JOHANSSON MARIE (SE)
Applicant: SIEMENS ELEMA AB (SE)
Classification:
 - international: **B01D53/22; B01D53/26; B01D53/22; B01D53/26;**
 (IPC1-7): B01D53/26; A61M16/10; B01D53/22
 - european: B01D53/22W; B01D53/26B
Application number: EP19950101081 19950126
Priority number(s): SE19940000991 19940324

Also published as:

 US5558087 (A1)
 JP7275638 (A)
 EP0673668 (B1)
 SE501880 (C2)

Cited documents:

 US5131387
 EP0535379

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Abstract of EP0673668

A dehumidifying device is often used to protect measurement equipment from condensation during measurements of a flowing gas. A device (2), which does not need to be replaced, is achieved when a container (4) is filled with a hydrophilic material (6, 18) and connected to a moisture permeable element (20). When a gas flows through the device (2) via an inlet (14), a flow channel (12) and an outlet (16), the hydrophilic material (6, 18) absorbs moisture from the flowing gas. The absorbed moisture is released into ambient air via the moisture permeable element (20).

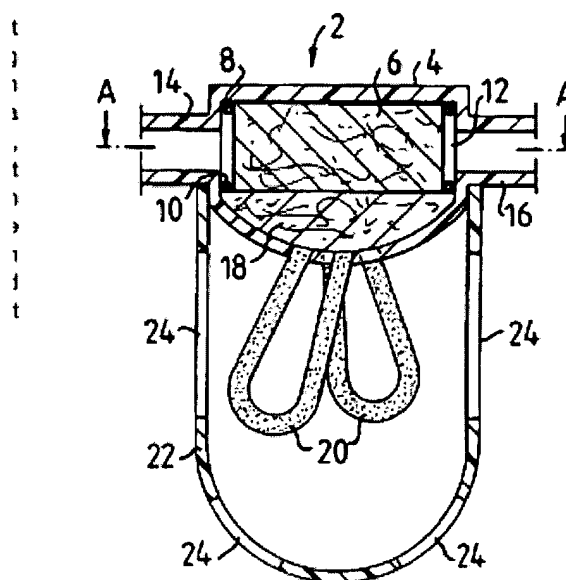







FIG. 1

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HEAT AND MOISTURE EXCHANGE FILTER

Patent number: JP6063141
Publication date: 1994-03-08
Inventor: GURAHAMU DESUMONDO ROU; KIISU
 SUCHIYUAATO MORISU; ROJIYAA EDOWAADO
 PEIJI; RICHIIYAADO GAI GATOMAN
Applicant: PALL CORP
Classification:
 - international: **A61M16/10; B01D39/18; B01D39/20; B01D46/16;
 B01D46/52; A61M16/10; B01D39/18; B01D39/20;
 B01D46/10; B01D46/52;** (IPC1-7): A61M16/16;
 A61M16/10
 - european: A61M16/10E; A61M16/10F1; B01D39/18;
 B01D39/20H4D; B01D46/16; B01D46/52
Application number: JP19930140876 19930611
Priority number(s): GB19920012399 19920611

Also published as:

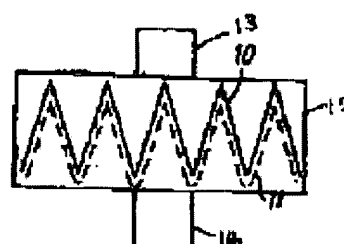
 NL9301022 (A)
 GR93100236 (A)
 GB2267661 (A)
 FR2749173 (A1)
 FR2692153 (A1)

more >>

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Abstract of JP6063141

PURPOSE: To provide a filter showing high microorganism elimination efficiency and low loss of moisture by consecutively placing hydrophilic base-material sheets and hydrophobic base-material sheets in the channel of a housing, and closely setting the hydrophilic base-material sheet to a connecting part of a exhaling line, and specifying the alcohol bubble point of a hydrophobic base- material to a particular value.
CONSTITUTION: The filter, which is stored in a housing 12 equipped with ports 13 and 14, is composed of a hydrophilic base-material sheet 11 and a hydrophobic base-material sheet 10 pleated together. A ventilator is connected to the port 14 in the hydrophilic base-material 11 side of this device. The port 13 in the hydrophobic base-material 10 side is connected to a patient who inspires and expires a gaseous matter from the ventilator, so that the hydrophobic base-material 10 is made to be having an alcohol bubble point of 710 mm (28 inches) H₂O or higher to eliminate microorganisms. The water, which flows penetrating through the hydrophobic base-material, is captured by the hydrophilic base-material sheet 11 and diffused to all over the same. Therefore, usage of additional humidifiers is avoided.



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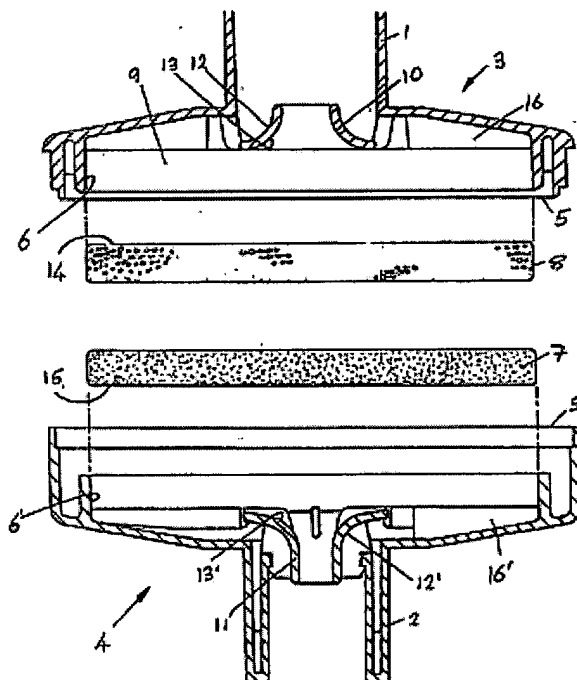
Heat and moisture exchanger/filter

Patent number: GB2267840
Publication date: 1993-12-22
Inventor: INGLES DAVID ALAN
Applicant: INTERSURGICAL LTD (GB)
Classification:
- international: A61M16/10; B01D39/16; B01D46/16; A61M16/10; B01D39/16; B01D46/10; (IPC1-7): A61M16/00; A61M16/10; B01D39/16; B01D46/12; C08L9/00
- european: A61M16/10E; B01D39/16F2; B01D46/16
Application number: GB19920013104 19920619
Priority number(s): GB19920013104 19920619

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Abstract of GB2267840

A heat and moisture exchanger and filter for inclusion in an air line used in anaesthesia or patient ventilation comprises a housing having inlet and output ports (1) & (2), the interior (16) of the housing being of greater cross sectional area than either of said ports, and a heat and moisture exchange element (8) spanning the interior of the housing between the ports, said element (8) being in the form of a sheet of water-activated, hydrophilic polyurethane reticulated foam untreated with any hygroscopic or hydrophilic agent, the housing and element being so arranged that air flow is distributed uniformly of the surface of the element. The housing also encloses a filter element (7), of electrostatically charged polymer fibres able to retain bacteria, in close contact with element (8). In making element (8), a block of foam is cast in a polypropylene or polythene mould, sliced into sheets and die-cut to shape.



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File 350:Derwent WPIX 1963-2006/UD,UM &UP=200617

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File 349:PCT FULLTEXT 1979-2006/UB=20060309,UT=20060302

(c) 2006 WIPO/Univentio

File 348:EUROPEAN PATENTS 1978-2006/MAR

Set Items Description

S1 774 AU='SMITH D' OR AU='SMITH D J'

S2 107 AU='SMITH DANIEL' OR AU='SMITH DANIEL J' OR AU='SMITH DANIEL JOHN'

S3 10 AU='MILLAR G' OR AU='MILLAR G W' OR AU='MILLAR GAVIN WALSH'

S4 36 AU='POWELL K' OR AU='POWELL K B'

S5 8 AU='POWELL KEVIN' OR AU='POWELL KEVIN BLAKE'

S6 67 AU='BALDWIN D' OR AU='BALDWIN D P' OR AU='BALDWIN DAVID' OR AU='BALDWIN DAVID PETER'

S7 18250 IC=A61M-015? OR IC=A61M-016?

S8 23 S1:S6 AND S7

S9 23 IDPAT (sorted in duplicate/non-duplicate order)

S10 13 IDPAT (primary/non-duplicate records only)

S11 160277 HYDROPHILIC OR HYDROPHILIC OR PERFLUORINATED OR TREATED() - FABRIC? ?

S12 45 S1:S6 AND S11

S13 37 S12 NOT S8

S14 267088 EXPIRATORY OR EXPIRATION OR EXHALATORY OR EXHALATION OR BREATH???

S15 5 S13 AND S14

S16 5 S1:S2 AND S3 AND S4:S5 AND S6

S17 0 S16 NOT S8

10/TI/4 (Item 4 from file: 350)

DIALOG(R)File 350:(c) 2006 Thomson Derwent. All rts. reserv.

Forming film for making conduits for use in limbs of breathing conduits by positioning conductor(s) adjacent to and parallel with thin polymer ribbon, folding the ribbon in half, and thermally welding the folded ribbon

10/TI/5 (Item 5 from file: 350)

DIALOG(R)File 350:(c) 2006 Thomson Derwent. All rts. reserv.

Continuous formation of conduit for use in the limbs of breathing circuits, comprises continuously applying thin film ribbons spirally around former rotating and advancing the conduit

10/TI/6 (Item 6 from file: 350)

DIALOG(R)File 350:(c) 2006 Thomson Derwent. All rts. reserv.

Connector forming method involves molding connector over conduit and sleeve, causing sleeve to become integral part of inner surface of connector

10/TI/7 (Item 7 from file: 350)

DIALOG(R)File 350:(c) 2006 Thomson Derwent. All rts. reserv.

Gas-treatment apparatus for use in medical procedure, e.g. laparoscopic and endoscopic procedures, includes insufflator, humidifier, transportation mechanism, and delivery device

10/TI/9 (Item 9 from file: 350)



DIALOG(R)File 350:(c) 2006 Thomson Derwent. All rts. reserv.

Coaxial breathing circuit component has enclosing wall defining gas passage between inlet and outlet such that wall part has hydrophilic

Improvements in or relating to humidifying apparatus

Patent number: GB2252515
Publication date: 1992-08-12
Inventor: ZWAAN PAUL; OREC ILIJA; MURRAY CHARLES GRAEME
Applicant: FISHER & PAYKEL (NZ)
Classification:
 - international: **A61M16/16; B01F3/02; A61M16/10; A61M16/14; A61M16/10; B01F3/00;** (IPC1-7): A61M16/00; B01F3/02
 - european: A61M16/16; B01F3/02B
Application number: GB19920004479 19920227
Priority number(s): NZ19880226392 19880929; NZ19880226784 19881031

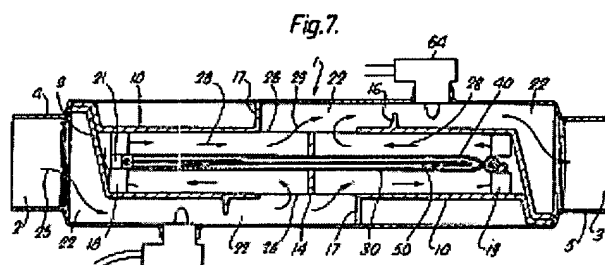
Also published as:

 US5062145 (A1)
 JP2193680 (A)
 GB2223694 (A)
 FR2636845 (A1)
 DE3932766 (A1)

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Abstract of GB2252515

A humidifier of small gases passageway volume (of the order of 50 ml gases space) has a heater 50 within a water containing envelope 30 having a microporous wall 40 common to the water space within the envelope and the gases space. This microporous wall is permeable to water vapour but not liquid water and the envelope is reinforced by a support which also directs the flow of gases over the surface of the envelope. The heater 50 is wound as a flat spiral to avoid the effect of gases or water vapour bubbles on heater performance temperature.



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material allowing water vapor except water and respiratory gases

10/TI/11 (Item 11 from file: 350)

DIALOG(R)File 350:(c) 2006 Thomson Derwent. All rts. reserv.

Humidified gases ventilation system has humidified ventilator providing flow of pressurized and humidified gases, and gases pathway connecting between patient interface and humidified ventilator

10/TI/12 (Item 12 from file: 350)

DIALOG(R)File 350:(c) 2006 Thomson Derwent. All rts. reserv.

Self-contained breathing system for protection against smoke - has face mask connected by first port to hose through which breathable air is supplied, and personal air filter having canister with inlet opening and use-evidence mechanism

10/TI/13 (Item 13 from file: 350)

DIALOG(R)File 350:(c) 2006 Thomson Derwent. All rts. reserv.

Nasal oxygen therapy mask - has mixing valve and exhaust port included in mask which is secured to bridge of nose by clip

10/3,AB,IC/1 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.

016927850

WPI Acc No: 2005-252160/200526

XRPX Acc No: N05-207579

Breathable respiratory mask for delivering supply of gases to user, includes patient interface having body and seal such that body includes moisture permeable area

Patent Assignee: FISHER & PAYKEL HEALTHCARE LTD (FISH-N); DUCKWORTH E L (DUCK-I); HUDDART B J (HUDD-I); PATEL B (PATE-I); POWELL K B (POWE-I); PURNOMO D A (PURN-I)

Inventor: BLAKE P K; DUCKWORTH E L; HUDDART B J; PATEL B; PURNOMO D A; POWELL K B

Number of Countries: 035 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20050056286	A1	20050317	US 2004921572	A	20040819	200526 B
EP 1516643	A1	20050323	EP 200422221	A	20040917	200526
AU 2004203870	A1	20050407	AU 2004203870	A	20040816	200533

Priority Applications (No Type Date): NZ 528326 A 20030917

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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US 20050056286	A1		24	A62B-018/08	
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EP 1516643	A1 E			A61M-016/06	
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Designated States (Regional): AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR

AU 2004203870	A1			A61M-016/00	
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Abstract (Basic): US 20050056286 A1

Abstract (Basic):

NOVELTY - The breathable respiratory mask includes a patient interface having a body and a seal. The body includes a moisture permeable area. The interface is adapted to provide a sealed flow path for the flow of gases to a user.

USE - For delivering supply of gases to a user. For delivering artificial respiratory therapy to patients requiring respiratory

humidification treatment.

ADVANTAGE - Ensures enough compressive force on the mask cushion to provide an effective seal against the user's face. Allows for quick removal of the hollow body, thus enabling other treatments to be administered with minimal disruption to the user. Increases user comfort by reducing the compressive force of the patient interface on the user's face. Minimizes gas leakage from the mask.

DESCRIPTION OF DRAWING(S) - The figure shows the front view of the patient interface body.

Inspiratory conduit (3)
Cut out (34)
Framework (35)
Outer circumference surface (36)
Vertical member (37)
pp; 24 DwgNo 3/18

International Patent Class (Main): A61M-016/00 ; A61M-016/06 ;
A62B-018/08
International Patent Class (Additional): A62B-007/00

10/3,AB,IC/2 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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016618250

WPI Acc No: 2004-776976/200477

Related WPI Acc No: 2002-012606; 2004-439670

XRFX Acc No: N04-611984

Breathing circuit component for expiratory arm, has breathable regions that reinforces enclosing wall against passageway stretching, and permits passage of water vapor while preventing passage of liquid water or respiratory gas

Patent Assignee: FISHER & PAYKEL HEALTHCARE LTD (FISH-N)

Inventor: BALDWIN D P ; MILLAR G W ; POWELL K B ; SMITH D J

Number of Countries: 004 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1477200	A2	20041117	EP 2001111359	A	20010509	200477 B
			EP 200417661	A	20010509	

Priority Applications (No Type Date): NZ 509041 A 20001220; NZ 504439 A 20000510

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 1477200	A2	E	19	A61M-016/08	Div ex application EP 2001111359 Div ex patent EP 1153627

Designated States (Regional): DE FR GB IT

Abstract (Basic): EP 1477200 A2

Abstract (Basic):

NOVELTY - A breathing circuit component (4) has an enclosing wall (1) that defines a gas passageway between an inlet and an outlet. The breathable regions (2,3) of the enclosing wall permits passage of water vapor but prevents passage of liquid water or respiratory gas, such that the breathable regions serve as reinforcement against longitudinal stretching of the passageway.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a breathing circuit conduit manufacturing apparatus.

USE - For expiratory arm of breathing circuit.

ADVANTAGE - Enhances reinforcement and protection of inner circuit.

Improves insulating property by providing airflow barrier with respect to inner circuit. Enhances aesthetic appearance by encapsulating mesh. Prevents direct contact between user and breathable tube surface by providing spanning thread. Reduces saturation of expiratory flow.

DESCRIPTION OF DRAWING(S) - The figure shows the cross sectional view of the breathing circuit component.

Enclosing wall (1)

Breathable regions (2,3)

Breathing circuit component (4)

pp; 19 DwgNo 1/13

International Patent Class (Main): A61M-016/08

International Patent Class (Additional): A61M-016/10

10/3,AB,IC/3 (Item 3 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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016281775

WPI Acc No: 2004-439670/200441

Related WPI Acc No: 2002-012606; 2004-776976

XRAM Acc No: C04-164595

XRPX Acc No: N04-347931

Breathing circuit limb for expiratory arm of breathing circuit used in medical applications, includes singular exhalation flow passage of material allowing passage of water vapor without allowing the passage of liquid or respiratory gases

Patent Assignee: FISHER & PAYKEL HEALTHCARE LTD (FISH-N)

Inventor: BALDWIN D P ; MILLAR G W ; POWELL K B ; SMITH D J

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20040099268	A1	20040527	US 2001850797	A	20010508	200441 B
			US 2003622755	A	20030718	

Priority Applications (No Type Date): NZ 509041 A 20011220; NZ 504439 A 20000510

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20040099268	A1	18	A61M-015/00	Div ex application US 2001850797

Abstract (Basic): US 20040099268 A1

Abstract (Basic):

NOVELTY - A breathing circuit limb comprises an inlet, an outlet, and an enclosing wall defining a singular exhalation flow passage between the inlet and outlet, and a water vapor flow path from the exhalation flow passage to ambient air through the material. At least a region of the enclosing wall is of a material that allows the passage of water vapor without allowing the passage of liquid or respiratory gases.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for an apparatus for forming a breathing conduit comprising a former on which a tube wall can be deposited and that advances the tube wall in advance axis and rotates at the advance direction, at least one film laying head that deposits a film on the former, a bead laying head laying a reinforcing bead on an overlap seam, an axial thread laying head fitted over and around the former and carrying thread feeds, and a rotator to rotate the axial thread laying head at the same speed as the expected rotation of the tube. The combined width of the film is wider than the pitch so that adjacent turns of the laid film overlap to form an

overlap scam.

USE - For the expiratory arm of a breathing circuit used in medical applications.

ADVANTAGE - The invention provides the public and medical profession with a useful choice. The material allows the passage of water vapor without allowing the passage of liquid water or respiratory gases.

DESCRIPTION OF DRAWING(S) - The figure shows a cross sectional elevational of a coaxial breathing circuit.

Longitudinal strip (2, 3)

Inner conduit (10)

Space (12, 13)

pp; 18 DwgNo 4/13

International Patent Class (Main): A61M-015/00

International Patent Class (Additional): A61M-016/10

10/3,AB,IC/8 (Item 8 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014263814

WPI Acc No: 2002-084512/200212

XRPX Acc No: N02-062826

Conduit with heated wick for medical assisted breathing circuit has elongated heating element covered with inner hydrophobic insulating layer and outer hydrophilic layer

Patent Assignee: FISHER & PAYKEL LTD (FISH-N); FISHER & PAYKEL HEALTHCARE LTD (FISH-N); BALDWIN D P (BALD-I); SMITH D J (SMIT-I)

Inventor: BALDWIN D P ; SMITH D J

Number of Countries: 030 Number of Patents: 012

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1166814	A2	20020102	EP 2001115101	A	20010621	200212 B
US 20020002976	A1	20020110	US 2001886835	A	20010621	200212
CA 2351183	A1	20011221	CA 2351183	A	20010621	200213
AU 200153944	A	20020103	AU 200153944	A	20010621	200214
JP 2002085569	A	20020326	JP 2001188568	A	20010621	200236
US 6662802	B2	20031216	US 2001886835	A	20010621	200382
US 20040045549	A1	20040311	US 2001886835	A	20010621	200419
			US 2003649938	A	20030827	
US 20040118401	A1	20040624	US 2001886835	A	20010621	200442
			US 2003684917	A	20031014	
EP 1166814	B1	20041229	EP 2001115101	A	20010621	200502
DE 60108002	E	20050203	DE 108002	A	20010621	200510
			EP 2001115101	A	20010621	
AU 780911	B2	20050421	AU 200153944	A	20010621	200532
DE 60108002	T2	20051229	DE 108002	A	20010621	200606
			EP 2001115101	A	20010621	

Priority Applications (No Type Date): NZ 509040 A 20001220; NZ 505355 A 20000621

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

EP 1166814 A2 E 10 A61M-016/00

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT

LI LT LU LV MC MK NL PT RO SE SI TR

US 20020002976 A1 A61M-015/00

CA 2351183 A1 E A62B-009/00

AU 200153944 A A61M-016/10
 JP 2002085569 A 24 A61M-016/04
 US 6662802 B2 A61M-015/00
 US 20040045549 A1 A61M-016/00 Cont of application US 2001886835
 Cont of patent US 6662802
 US 20040118401 A1 A61M-016/00 CIP of application US 2001886835
 CIP of patent US 6662802
 EP 1166814 B1 E A61M-016/00
 Designated States (Regional): DE FR GB IT
 DE 60108002 E A61M-016/00 Based on patent EP 1166814
 AU 780911 B2 A61M-016/10 Previous Publ. patent AU 200153944
 DE 60108002 T2 A61M-016/00 Based on patent EP 1166814
 Abstract (Basic): EP 1166814 A2
 Abstract (Basic):
 NOVELTY - The conduit has an elongated heating element (110)
 covered with an inner hydrophobic insulating layer and an outer
 hydrophilic layer. The heating element is located in the conduit and
 associated at least in part with a portion of hydrophilic material
 (108), there being no means for direct supply of water or fluid to the
 hydrophilic material from outside the conduit.
 DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a
 breathing circuit.
 USE - In medical applications for administering breathing gases to
 patient.
 ADVANTAGE - Reduced formation of condensation.
 DESCRIPTION OF DRAWING(S) - The drawing shows a cross sectional
 view of the conduit.
 Hydrophobic material (108)
 Elongated heating element (110)
 pp; 10 DwgNo 1a/8
 International Patent Class (Main): A61M-015/00 ; A61M-016/00 ;
 A61M-016/04 ; A61M-016/10 ; A62B-009/00
 International Patent Class (Additional): A61M-005/44; A61M-025/00;
 F23D-011/00; F23D-014/00; H05B-003/00

10/3,AB,IC/9 (Item 9 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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 014191909

WPI Acc No: 2002-012606/200202

Related WPI Acc No: 2004-439670; 2004-776976

XRPX Acc No: N02-010387

Coaxial breathing circuit component has enclosing wall defining gas
 passage between inlet and outlet such that wall part has hydrophilic
 material allowing water vapor except water and respiratory gases

Patent Assignee: FISHER & PAYKEL LTD (FISH-N); FISHER & PAYKEL HEALTHCARE
 LTD (FISH-N); BALDWIN D P (BALD-I); MILLAR G W (MILL-I); POWELL K B
 (POWE-I); SMITH D J (SMIT-I)

Inventor: BALDWIN D P ; MILLAR G W ; POWELL K B ; SMITH D S; SMITH D J

Number of Countries: 033 Number of Patents: 011

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1153627	A2	20011114	EP 2001111359	A	20010509	200202 B
AU 200143823	A	20011115	AU 200143823	A	20010509	200202
CA 2346628	A1	20011110	CA 2346628	A	20010508	200202
BR 200102116	A	20011226	BR 20012116	A	20010507	200206

US 20010054422 A1 20011227 US 2001850797 A 20010508 200206
 JP 2002058741 A 20020226 JP 2001140405 A 20010510 200219
 TW 513318 A 20021211 TW 2001110827 A 20010507 200353
 SG 100691 A1 20031226 SG 20012699 A 20010509 200414
 US 6769431 B2 20040803 US 2001850797 A 20010508 200451
 AU 2004202878 A1 20040722 AU 200143823 A 20010509 200472 N
 AU 2004202878 A 20040629
 AU 777186 B2 20041007 AU 200143823 A 20010509 200480
 Priority Applications (No Type Date): NZ 509041 A 20001220; NZ 504439 A
 20000510; AU 2004202878 A 20040629
 Patent Details:
 Patent No Kind Lan Pg Main IPC Filing Notes
 EP 1153627 A2 E 20 A61M-016/08
 Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
 LI LT LU LV MC MK NL PT RO SE SI TR
 AU 200143823 A A61H-031/00
 CA 2346628 A1 E A61M-016/00
 BR 200102116 A A61M-016/00
 US 20010054422 A1 A62B-007/00
 JP 2002058741 A 50 A61M-016/04
 TW 513318 A A61M-016/00
 SG 100691 A1 A61M-016/16
 US 6769431 B2 B01D-053/22
 AU 2004202878 A1 A61M-016/08 Div ex application AU 200143823
 AU 777186 B2 A61M-016/08 Previous Publ. patent AU 200143823
 Abstract (Basic): EP 1153627 A2
 Abstract (Basic):

NOVELTY - The coaxial breathing circuit component includes an enclosing wall defining a gas passage between an inlet and an outlet. The predetermined region of the enclosing wall consists of a hydrophilic material that allows the passage of a water vapor without allowing the passage of water or respiratory gases.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a breathing circuit conduit manufacturing apparatus.

USE - Used in medical application.

ADVANTAGE - Enables reduction of formation of condensation on inside wall of conduit by maintaining or elevating the temperature of the gases flowing along conduit wall.

DESCRIPTION OF DRAWING(S) - The figure shows the partial cross-section side elevation of coaxial breathing circuit.

pp; 20 DwgNo 5/13

International Patent Class (Main): A61H-031/00; **A61M-016/00** ; **A61M-016/04**
 ; **A61M-016/08** ; **A61M-016/16** ; A62B-007/00; B01D-053/22
 International Patent Class (Additional): **A61M-015/00** ; **A61M-016/10** ;
 A62B-009/00; A62B-018/00; B01F-003/04; F23D-011/00; F23D-014/00;
 F24F-005/00; F24J-003/00; H05B-003/00

15/26, TI/2 (Item 2 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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01103031

CONDUITS AND METHOD OF FORMING

Publication Year: 2004

15/26, TI/4 (Item 1 from file: 348)

DIALOG(R) File 348: EUROPEAN PATENTS

01840026

Method for removing a releasable inner layer from within a conduit

15/26, TI/5 (Item 2 from file: 348)

DIALOG(R) File 348:EUROPEAN PATENTS

01823681

Method of forming a conduit

File 155:MEDLINE(R) 1951-2006/Mar 10
 (c) format only 2006 Dialog
 File 5:Biosis Previews(R) 1969-2006/Mar W1
 (c) 2006 BIOSIS
 File 73:EMBASE 1974-2006/Mar 14
 (c) 2006 Elsevier Science B.V.

Set	Items	Description
S1	32409	AU=SMITH D?
S2	122	AU=MILLAR G?
S3	1961	AU=POWELL K?
S4	1812	AU=BALDWIN D?
S5	1	S1 AND S2 AND S3 AND S4
S6	186657	BREATH???
S7	57121	HYDROPHILIC OR HYDROPHILIC
S8	1773	PERFLUORINATED() POLYMER? ? OR NAFION OR POLYESTER() BLOCK() - COPOLYMER? ? OR SYMPATEX OR WOVEN() TREATED() FABRIC? ?
S9	0	S1:S4 AND S6 AND S7:S8
S10	351	S1:S4 AND S6:S8
S11	138183	EXPIR? OR EXHAL?
S12	201	S1:S4 AND S11
S13	0	S12 AND S7:S8
S14	1490627	VENTILAT? OR RESPIRAT?
S15	1360	S1:S4 AND S14
S16	96298	CONDENS?
S17	259	S1:S4 AND S6
S18	1584	S12 OR S15 OR S17
S19	2	S18 AND S16
S20	0	S18 AND S7:S8

5/7/1 (Item 1 from file: 5)

DIALOG(R) File 5:Biosis Previews(R)

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0014983913 BIOSIS NO.: 200400354702

Expiratory limit for a breathing circuit

AUTHOR: **Smith Daniel John** (Reprint); **Millar Gavin Walsh** ; **Powell Kevin Blake** ; **Baldwin David Peter**

AUTHOR ADDRESS: Auckland, New Zealand**New Zealand

JOURNAL: Official Gazette of the United States Patent and Trademark Office
 Patents 1285 (1): Aug. 3, 2004 2004

MEDIUM: e-file

ISSN: 0098-1133 _(ISSN print)

DOCUMENT TYPE: Patent

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: A breathing circuit component includes an inlet, an outlet and an enclosing wall. The enclosing wall defines a gases passageway between the inlet and the outlet. At least a region of the enclosing wall is formed from a breathable material that allows the passage of water vapor without allowing the passage of liquid water or respiratory gases. The breathing circuit component may be the expiratory limb of a breathing circuit.

19/6/1 (Item 1 from file: 155)

07497887 PMID: 3677748

A technique for the administration of ribavirin to mechanically ventilated infants with severe respiratory syncytial virus infection.
 Nov 1987

File 399:CA SEARCH(R) 1967-2006/UD=14412

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Set	Items	Description
S1	625	AU='SMITH, D' OR AU='SMITH, D.'
S2	392	AU='SMITH, D. J.'
S3	196	AU='SMITH, DANIEL' OR AU='SMITH, DANIEL J.' OR AU='SMITH, - DANIEL JOHN'
S4	7	AU='MILLAR, G.'
S5	21	AU='POWELL, K.'
S6	8	AU='POWELL, KEVIN'
S7	32	AU='BALDWIN, D.' OR AU='BALDWIN, D. P.'
S8	55	AU='BALDWIN, DAVID' OR AU='BALDWIN, DAVID P.'
S9	0	S1:S3 AND S4 AND S5:S6 AND S7:S8
S10	2963	EXPIR? OR EXHAL?
S11	1	S1:S8 AND S10 [not relevant]
S12	382315	CONDENS?
S13	24983	HYDROPHIL???
S14	72337	PERFLUORINATED() POLYMER? ? OR THERMOPLASTIC? ? OR WOVEN() T- REATED() FABRIC? ?
S15	0	S1:S8 AND S13(S)S14
S16	8	S1:S8 AND S12:S14
S17	8	S16 NOT S11
S18	8	RD (unique items) [not relevant]